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United States
Department of
Agriculture

Agricultural
Research
Service

ARS-110

Plant Protection
Research Unit
U.S. Plant, Soil &
Nutrition Laboratory

Ithaca, New York

November 1992

Collection of Entomopathogenic Fungal Cultures

 Catalog of Strains

In cooperation with the USDA-APHIS
National Biological Control Institute

Abstract

Humber, Richard A. 1992. Collection of Entomopathogenic Fungal Cultures: Catalog of Strains, 1992. U.S. Department of Agriculture, Agricultural Research Service, ARS-110, 177 pp.

This is a catalog to approximately 3,700 fungal cultures from more than 72 countries. The cultures are held in the ARS Collection of Entomopathogenic Fungi (ARSEF), an internationally known research resource for the fungal pathogens of invertebrates. In addition to listing the cultures by species, the catalog includes five indices listing host by fungus, fungi by host and location, geographic origin of fungi, alternate collections, and ARSEF accession number. Also included are instructions for ordering fungal strains and brief explanations of free diagnostic, exchange, and deposition services.

Keywords: Catalogs, entomopathogenic fungi, fungi.

Mention of trade names of commercial products in this publication is solely for the purpose of providing information and does not imply recommendations by the U.S. Department of Agriculture.

Copies of this publication may be purchased from the National Technical Information Service, 5285 Port Royal Rd., Springfield, VA 22161.

ARS has no additional copies for free distribution.

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Acknowledgments

The body and indices of this catalog are reproductions of direct output from a customized data base management application that is used for all aspects of recordkeeping for the ARSEF culture collection.

Sincere thanks to Timothy S. Larkin for his indispensable role in implementing this collection management application and to Mary-Lynn Cummings for her fine-tuning of the data base design and her diligence in entering, verifying, and rectifying the information in the data base. Without their skills and input, this wholly revised catalog would not have been possible.

COLLECTION OF ENTOMOPATHOGENIC FUNGAL CULTURES

 Catalog of Strains

Richard A. Humber

History and Purpose of the Collection

The goal of the ARS Collection of Entomopathogenic Fungi (ARSEF) is to provide fundamental support for basic and applied research on the fungal pathogens of invertebrates. Since its establishment in the early 1970's, this collection has served as a general research resource for the isolation, collection, preservation, and distribution of fungal strains from insects, other arthropods, and nematodes. Emphasis has always been placed on acquiring and distributing strains under active study for use as potential biological control agents. Basic research associated with the collection includes fungal systematics, fungal cytology, pathobiology, and methodology for fungal cryopreservation. The culture collection and its associated collection of microscope slides and herbarium specimens provide invaluable support for taxonomic research on and the diagnoses of fungal pathogens of invertebrates. Identification services for specimens and cultures have always been available free of charge to any laboratories requesting them.

We strive to provide users with pure and accurately identified fungal cultures. Uncertainties about strain identifications not stated in this catalog will be communicated to culture recipients. The curator of the collection welcomes all correspondence about nomenclatural or taxonomic changes or possible misidentifications involving any ARSEF strains.

This culture collection began as Dr. Richard Soper's research collection at the ARS Plant, Soil, and Water Laboratory at the University of Maine at Orono (UMO). The original UMO prefix for these cultures was changed to the site-independent prefix RS for Richard Soper. In 1978, the ARS Insect Pathology Research Unit and its culture collection were relocated to be associated with the Insect Pathology Program of the Boyce Thompson Institute (BTI) in its new building on the Cornell University campus. The Insect Pathology Research Unit and some other small ARS

units on the Cornell campus were united into the Plant Protection Research Unit (PPRU) in October 1985. After occupying transitional quarters, the PPRU insect pathology program and the culture collection moved in November 1990 into newly renovated laboratories in the U.S. Plant, Soil, and Nutrition Laboratory (across the street from the Boyce Thompson Institute).

The Plant Protection Research Unit owns and operates this culture collection; it is not now nor has it ever been owned or controlled by the Boyce Thompson Institute even though BTI administers the collection's sales account. This culture collection is one of the largest microbial germplasm collections in USDA-ARS, and PPRU is widely recognized for its active support and encouragement of global research on fungal pathogens of arthropods. The culture collection and its associated herbarium are respectively registered under the ARSEF acronym with the World Federation of Culture Collections' World Data Center on Microorganisms and with the International Association of Plant Taxonomists' *Index Herbariorum*.

Since 1977, all strains in the collection have been stored by immersion in liquid nitrogen at -196 °C, but limited dewar space will require shifting many strains from cryogenic to lyophil storage within the near future. Requests for cultures are filled with either live cultures on appropriate solid or liquid media or lyophil tubes (plus instructions for fungal recovery), depending on how the requested strain is stored.

Identifying and Acknowledging ARSEF Strains in Publications

We request that all publications using or referring to strains obtained from ARSEF acknowledge the U.S. Department of Agriculture, ARS Plant Protection Research Unit and state the ARSEF accession numbers of these strains. We would very greatly appreciate receiving reprints of all past, current, and future publications or even periodic notification about research in progress involving the use of ARSEF strains.

Accession numbers of strains from commercial culture collections such as the American Type Culture Collection (ATCC), Centraalbureau voor Schimmelcultures (CBS), CAB International Mycological Institute (IMI), and the University of Alberta Microfungus Collection (UAMH) are listed in this catalog only for the sake of providing complete information. **Representation of cultures obtained from ARSEF as ATCC, CBS, IMI or UAMH cultures is a**

Curator, Agricultural Research Service, Plant Protection Research Unit, U.S. Plant, Soil, and Nutrition Laboratory, Tower Rd., Ithaca, NY 14853-2901; Phone: (607) 255-1276; Fax: (607) 255-2459; electronic mail: RHUMBER@QMRELAY.MAIL.CORNELL.EDU (via Internet).

Distributed with funding from the USDA, Animal and Plant Health Inspection Service, National Biological Control Institute

violation of trademark laws; persons doing so are subject to prosecution. Cultures received from ARSEF should be referred to by their ARSEF numbers only.

Updated, Special, and Electronic Catalogs

All accession information for ARSEF cultures has been computerized. This catalog was generated directly from the data base. General catalog updates will be issued approximately every 2 years. Supplements listing cultures accessioned since the printing of the current catalog or special catalogs focusing on strains of particular fungal species or from particular hosts or geographic regions can be prepared on request.

The ARSEF catalog is not available in any electronic format directly readable by word processing or text editing software. Complimentary copies of the ARSEF data base or the customized application used to manage it or both can be obtained upon consultation with the curator of the ARSEF collection. This application program requires users to have access to either full or run-time versions of the 4th Dimension data base manager (Acius, Inc.) and an Apple Macintosh computer. Planning is under way to include accession information for ARSEF cultures in the computerized ARS Germplasm Resources in the Nation (GRIN) information network; this information should be available on-line after the activation of the newly revised GRIN-III system.

Depositing and Exchanging Cultures

The Plant Protection Research Unit encourages deposition of entomopathogenic fungal cultures with the ARSEF collection—particularly strains used in published studies—as well as of voucher and reference specimens to its herbarium. Depositors may reserve the right to limit redistribution of any culture deposited with ARSEF for specified times upon consultation with the curator. Depositors can receive subcultures of their own depositions at any time; these cultures do not affect any allowances of free cultures.

Exchanges of cultures between ARSEF and other research or general collections of fungal cultures are encouraged and are not subject to numerical limits.

Prior to shipping cultures from countries outside the United States, contact the curator to obtain the appropriate needed importation permit from the U.S. Department of Agriculture, Animal and Plant Health Inspection Service, Plant Protection and Quarantine.

When sending cultures or specimens or both to ARSEF, it is very important to include as much of the following information as possible:

1. Scientific name (and taxonomic authority) of the fungus.
2. Common and scientific name (with taxonomic authority) of the host.
3. Order and family of the host. **(This is especially critical information.)**
4. Date and site of collection.
5. Name of collector.
6. Date and name of isolator.
7. Any collection, accession, or other identifier number(s) applied by the collector or sender.
8. Medium on which a culture is sent.
9. Any special requirements or conditions for growth (such as medium, temperature, pH).

Diagnostic Services for Cultures and Specimens

Specimens and cultures of unidentified fungi from invertebrates can be submitted to ARSEF for diagnosis. This service is an important function of the ARS Collections of Entomopathogenic Fungi and is provided without charge. Identifications and information about the disposition of specimens will be mailed to the sender.

Release of ARSEF Cultures From Containment or Quarantine

Neither the curator nor any employee of ARSEF or of the Plant Protection Research Unit is entitled to authorize the release of any culture it provides from laboratory containment or quarantine in the United States or elsewhere. Recipients of ARSEF cultures are responsible for obtaining appropriate and necessary permissions from or for providing official notifications to State and Federal regulatory agencies.

Ordering Information

All requests for isolates should be sent directly to the curator, ARS Collection of Entomopathogenic Fungal Cultures, U.S. Plant, Soil, and Nutrition Laboratory, Tower Rd., Ithaca, NY 14853–2901, USA; telephone: (607) 255–1276; fax: (607) 255–2459.

Academic, Government, and Other Nonprofit Institutions

5 or fewer isolates per order (up to 7 per calendar year) no charge

6 or more isolates per order (8 or more per calendar year) US\$40 per strain

Users from nonprofit institutions can receive up to five isolates without charge in any 6-month period and up to seven cultures in any calendar year. Users requesting in excess of these limits will be charged at the rate of US\$40 per additional isolate requested. Commercially sponsored research programs undertaken by nonprofit institutions are charged at the commercial rate and are not subject to numerical limits. **Prices are subject to change without notice.**

Commercial and Industrial Institutions US\$75 per strain

Nonprofit institutions working on commercially sponsored contractual projects (such as screening programs) are charged at the rate of US\$75 per strain requested. There are no limits on the numbers of cultures that can be requested or shipped. **Prices are subject to change without notice.**

Commercial or industrial firms supporting research at the ARS Plant Protection Research Unit are entitled to free access to cultures pertinent to contracted projects; all other requests are charged at the current rate.

Terms of Shipment

Billings for isolates are issued through the Boyce Thompson Institute. We encourage prepayment for isolates. **Checks or money orders for strains must be made out to the Boyce Thompson Institute** but sent directly to the curator of the ARS Collections of Entomopathogenic Fungi. Consult the curator of the collections with questions about fees due for any particular shipment.

We request confirmation of receipt and viability of cultures shipped. Strains that are inviable upon receipt will be replaced.

ARSEF reserves the right to refuse to ship strains

- to recipients who cannot handle them with standard microbiological practices,
- to laboratories that cannot assure laboratory containment of isolates *except* after obtaining permissions from applicable State and Federal regulatory agencies,
- if use of routine mailing or shipping procedures cannot assure the receipt of viable cultures.

ARSEF, the ARS Plant Protection Research Unit, and the Boyce Thompson Institute are not liable for damages arising from the misidentification of strains.

Interpretation Of Strain Accession Data

The following examples provide a guide to the arrangement and interpretation of collection data included in this catalog.

Beauveria bassiana (Balsamo) Vuillemin

- 2484 SR Sánchez Peña (Trachym 1). *Atta mexicana* [Hymenoptera: Formicidae]. Dec 20 1986. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.

• 2484	ARSEF accession number. Dot indicates restricted redistribution status requiring consultation with ARSEF curator and possibly permission of depositor.
SR Sánchez Peña (Trachym 1)	Depositor and depositor's reference or accession number.
<i>Atta mexicana</i> [Hymenoptera: Formicidae]	Original host together with the host's order and family.
Dec 20 1986	Date of accession or receipt.
Mexico: El Fuerte, Sinaloa	Country of origin followed by the locality and state.
Restricted until September 1994	Limitation on restricted redistribution status.

Conidiobolus thromboides Drechsler

- 73 [CSIRO EM534; FPMI 28] RG Kenneth (3040)←ATCC (24419)←DM MacLeod ←G Thoizon. *Rhopalosiphum insertum* [Homoptera: Aphididae]. Rec'd Jan 18 1976. France: Val-de-Marne, La Varenne.

73	ARSEF accession number.
[CSIRO EM534; FPMI 28]	Alternative depositions of this strain in other culture collections.
RG Kenneth (3040)	Depositor and depositor's reference or accession number.
← ATCC (24419) ← DM MacLeod	Culture provenance: RG Kenneth obtained the culture from ATCC, which obtained if from DM MacLeod, who obtained it from G Thoizon.
← G Thoizon	
<i>Rhopalosiphum insertum</i> [Homoptera: Aphididae]	Original host together with the host's order and family.
Rec'd Jan 18 1976	Date of receipt.
France: Val-de-Marne, La Varenne	Country of origin followed by the locality and region.

Hirsutella thompsonii Fisher

- 137 [ATCC 24874; CBS 952.73] CW McCoy (Fla. 68). *Phyllocoptruta oleivora* [Acari: Eriophyidae]. Jan 1 1970. USA: Orlando, Florida.

137	ARSEF accession number.
[ATCC 24874; CBS 952.73]	Alternative depositions of this strain in other culture collections.
CW McCoy (Fla. 68)	Depositor and depositor's reference or accession number.
<i>Phyllocoptruta oleivora</i> [Acari: Eriophyidae]	Original host together with the host's order and family.
Jan 1 1970	Date of accession or receipt. Note: January 1 is a default date if an exact date with a year is unrecorded; the first day of each month is a default date if no specific day within a month is recorded.
USA: Orlando, Florida	Country of origin followed by the locality and state.

Abbreviations

ARSEF	ARS Collection of Entomopathogenic Fungi, USDA-ARS Plant Protection Research Unit, U.S. Plant, Soil, and Nutrition Laboratory, Tower Road, Ithaca, New York, 14853–2901, USA	DAOM	National Mycological Herbarium, Centre for Land and Biological Resources Research, Agriculture Canada, Central Experimental Farm, Ottawa, Ontario, K1A 0C6, Canada
ATCC	American Type Culture Collection, 12301 Parklawn Drive, Rockville, Maryland 20852, USA	DAR	New South Wales Department of Agriculture, Rydalmere, NEW, Australia
CATIE	Centro Agronómico Tropical de Investigación y Enseñanza, Proyecto UIP, Apdo. Postal 7170, Turrialba, Costa Rica.	FPMI	Forest Pest Management Institute, 1219 Queen Street East, Sault Ste. Marie, Ontario P6A 5M7, Canada
CBS	Centraalbureau voor Schimmelcultures, P.O. Box 273, 3740 AG Baarn, The Netherlands	GCRI	Institute for Horticultural Research (formerly, Glasshouse Crops Research Institute), Worthing Road, Littlehampton, W. Sussex BN17 6LP, England, UK
CCF	Culture Collection of Fungi, Department of Botany, Charles University, Prague, Czech and Slovak Federative Republic	HACC	Hindustan Antibiotics Ltd., Pimpri, Poona, India
CCFC	Canadian Collection of Fungus Cultures, Centre for Land and Biological Resources Research, Room 1015, K.W. Neatby Bldg., Ottawa, Ontario K1A 0C6, Canada	IMI	CAB International Mycological Institute, Bakeham Lane, Egham, Surrey TW20 9TY, England, UK
CDC	Centers for Disease Control, Atlanta, Georgia 30333, USA	INRA	Station de Recherches de lutte Biologique et Biocoenotique, INRA (Institut National de la Recherche Agronomique), La Minière 78280 Guyancourt, France
CENARGEN	Centro Nacional de Pesquisa de Recursos Genéticos e Biotecnologia, S.A.I.N. Parque Rural, C.P. 102372, 70770 Brasília, D.F., Brazil	IPLB	Unité de Lutte Biologique, Institut Pasteur, 28 Rue de Dr. Roux, 75724 Paris, France
CIRI	Corn Insects Research Unit, USDA-ARS, R.R. Box 45B, Ankeny, Iowa 50021, USA	IRRI	International Rice Research Institute, P.O. Box 933, Manila, Philippines
CNPAF	National Center for Agricultural Research on Rice and Beans, EMBRAPA, Goiânia, Goiás, Brazil	KSU	Kansas State University, Department of Entomology, Manhattan, Kansas 66506, USA
CNPS	National Center for Agricultural Research on Rice and Beans, EMBRAPA, Londrina, Paraná, Brazil	MAF	Ministry of Agriculture and Fisheries, Canterbury Agriculture and Science Centre, Ellesmere Junction Road, P.O. Box 24, Lincoln, New Zealand
CP	Strains isolated during joint U.S.-Brazil program studying insect pests of cowpeas; Title XII program funded by U.S.-AID	MU	Miami University, Willard Sherman Turrell Herbarium, Department of Botany, 79 Upham Hall, Oxford, Ohio 45056, USA

NCTC	National Collection of Type Cultures, Public Health Laboratory Service, 61 Colindale Avenue, London NW9 5HT, England, UK
NRRL	Agricultural Research Service Culture Collection, National Center for Agricultural Utilization Research (formerly, Northern Regional Research Center), USDA-ARS, 1815 N. University, Peoria, Illinois 61604, USA
PSU	The Pennsylvania State University, 211 Buckhout Laboratory, University Park, Pennsylvania 16802, USA
QEC	Queen Elizabeth College, University of London, Department of Biology, Campden Hill Road, London W8 7AH, England, UK
QM	U.S. Army Natick Laboratories (formerly, Quartermaster Research and Development Center), Natick, Massachusetts. Note: This collection has been transferred to NRRL.
RSA	Rancho Santa Ana Botanic Garden, 1500 North College Avenue, Claremont, California 91711, USA
SBI	Sugarcane Breeding Institute, Indian Council of Agricultural Research, Coimbatore 641 007, Tamil Nadu, India
UAF	University of Arkansas, Department of Entomology, 321 Agriculture Building, Fayetteville, Arkansas 72701, USA
UAMH	University of Alberta Microfungus Collection, Devonian Botanic Garden, University of Alberta, Alberta T6G 2H7, Canada

Acremonium berkeleyanum (Karsten) Gams
[Hyphomycetes]

- 2067 [ATCC 64865] GC Carroll (3(RSRS-0/34)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Acremonium furcatum F&R Moreau ex Gams
[Hyphomycetes]

- 1372 TJ Poprawski (083). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 21 Jun 83. France: Choisy-en-Brie, Haute-Savoie.

Acremonium roseum (Oudemans) Gams
[Hyphomycetes]

- 1964 [CNPq 85-7-30; CP 190] JC Lord and BP Magalhães. *Pseudoplusia ni* [Lepidoptera: Noctuidae]. 30 Jul 85. Brazil: Nordeste.

Acrodontium crateriforme (Van Beyma) de Hoog
[Hyphomycetes]

- 2070 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Akanthomyces gracilis Samson & Evans
[Hyphomycetes]

- 2910 CBS (741.73). *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana.
2919 CBS (141.73) ← RA Samson. *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana: Atewa Forest Reserve.

Aphanocladium album (Preuss) Gams
[Hyphomycetes]

- 1329 TJ Poprawski (085). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 5 Jun 83. France: Chichery.
2161 BN Muthappa (PNG 12717). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.
3680 LS Osborne. *Bemisia tabaci* [Homoptera: Aleyrodidae] on tomato. Rec'd Apr 92. USA: Apopka, Florida.

***Aphanomyces* sp.**
[Oomycetes: Saprolegniales]

- 2005 [ATCC 58381] BA Jaffee (Lag3). *Xiphinema americanum* [Dorylaimida: Longidoridae]. 9 Jul 84. USA: Adams County, Pennsylvania.

Arthrobotrys dactyloides Drechsler
[Hyphomycetes]

- 2934 [ARSEF 3353 (deaccessioned)] BA Jaffee (Ad3). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field #3, Solano County, California.

- 3371 KT Hodge ← P John (RhΔ). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

- 3372 KT Hodge ← P John (Rh2). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

- 3373 KT Hodge ← P John (74⊙). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

- 3733 BA Jaffee (CR106). Rec'd 1 Jun 92. USA: Merced County, California.

Arthrobotrys musiformis

- 3730 BA Jaffee (MN101). Rec'd 1 Jun 92. USA: Merced County, California.

Arthrobotrys oligospora Fresenius
[Hyphomycetes]

- 3347 BA Jaffee (A01). Soil. 1981. USA: Edgefield City, South Carolina.

- 3732 BA Jaffee (MN103). Rec'd 1 Jun 92. USA: Merced County, California.

Arthrobotrys oligospora* var. *oligospora Fresenius
[Hyphomycetes]

- 3369 KT Hodge ← P John (Ar□). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

- 3370 KT Hodge ← P John (Ar2). Phylum Nemata, Class Secernemtia in soil sample. 21 Jul 91. USA: Herb Garden, Cornell Plantations, Ithaca, New York.

***Aschersonia* sp.**
[Hyphomycetes]

- 3014 SR Sánchez Peña. [Homoptera: Aleyrodidae] on *Citrus* sp. (orange) leaves. 26 May 90. Mexico: orange (Citrus) orchard, Gómez Farias, Tamaulipas.

- 3015 SR Sánchez Peña. Nymph, [Homoptera] on *Ficus* sp. 26 May 90. Mexico: orange (Citrus) orchard, Gómez Farias, Tamaulipas.

Aschersonia aleyrodidis Webber
[Hyphomycetes]

- 341 I Majchrowicz. Larva, *Dialeurodes ?citri* [Homoptera: Aleyrodidae] on citrus. Oct 78. USA: Lake Alfred, Florida.

- 342 I Majchrowicz. Larva, *Dialeurodes ?citri* [Homoptera: Aleyrodidae] on citrus. Oct 78. USA: Lake Alfred, Florida.

- 430 RS Soper. [Homoptera: Aleyrodidae] on citrus leaves. 9 Jan 80. USA: Lake Alfred, Florida.

- 432 RS Soper. [Homoptera: Aleyrodidae] on citrus leaves. 9 Jan 80. USA: Zephyr Hills, Lake Alfred, Florida.

- 992 J Aoki (Ash. 1) ← K Oshima ← N Oho. *Dialeurodes citri* [Homoptera: Aleyrodidae]. Rec'd 7 Nov 83. Japan: Saga Prefecture.

- 2154 MC Rombach (220386-1). *Aglaia odoratissima* [Homoptera: Aleyrodidae]. 22 Mar 86. Indonesia: Bogor Botanical Gardens, Bogor, Jawa Barat, Java.
- 2268 JJ Fransen ← RA Samson. *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. Rec'd 14 Oct 86. Netherlands: Baarn, Utrecht.

Aschersonia goldiana Saccardo & Ellis
[Hyphomycetes]

- 343 I Majchrowicz. Larva, *Dialeurodes ?citri* [Homoptera: Aleyrodidae] on citrus. Oct 78. USA: Lake Alfred, Florida.
- 431 RS Soper. [Homoptera: Aleyrodidae] on citrus leaves. 9 Jan 80. USA: Zephyr Hills, Lake Alfred, Florida.

Aschersonia inasperata Humber & Rombach
[Hyphomycetes]

Unpublished new species. Cultures produce both the *Aschersonia* state and a synanamorph, *Hirsutella inasperata* (q.v.).

- 2351 [ARSEF 2397] MC Rombach (131286-19). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Philodendron* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.
- 2356 [ARSEF 2391 (never frozen)] MC Rombach (201286-8). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Maoutia* sp. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2357 [ARSEF 2392 (never frozen)] MC Rombach (301286-7). *Dialeurodes citri* [Homoptera: Aleyrodidae]. 30 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2358 [ARSEF 2393 (never frozen)] MC Rombach (301286-8). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Maoutia* sp. 30 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2397 [ARSEF 2351] MC Rombach (131286-19). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Philodendron* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.
- 2398 MC Rombach (131286-13). Larva, *Dialeurodes citri* [Homoptera: Aleyrodidae] on *Philodendron* sp. 13 Dec 86. Indonesia: Gunung Merapi, Yogyakarta, Java.

Aschersonia turbinata (Berkeley) Petch
[Hyphomycetes]

- 1030 [GCRI 67-82] RA Hall. [Homoptera]. 1982. Colombia.

Ascosphaera aggregata Skou
[Plectomycetes: Ascospaerales]

- 689 JD Vandenberg (2). *Megachile rotundata* [Hymenoptera: Megachilidae]. Sep 81. USA: Lovelock, Nevada.
- 690 JD Vandenberg (3). *Megachile rotundata* [Hymenoptera: Megachilidae]. Sep 81. USA: Ontario, Oregon.

Ascosphaera apis (Maassen ex Claussen) Olive & Spiltoir
[Plectomycetes: Ascospaerales]

- 691 JD Vandenberg (4). *Apis mellifera* [Hymenoptera: Apidae]. Jun 79. USA: Corvallis, Oregon.
- 692 JD Vandenberg (5). *Apis mellifera* [Hymenoptera: Apidae]. Jul 81. USA: Corvallis, Oregon.
- 2683 SR Sánchez Peña. *Apis mellifera* [Hymenoptera: Apidae]. 6 Aug 89. USA: Lubbock, Texas.

Ascosphaera atra Skou & Hackett
[Plectomycetes: Ascospaerales]

- 693 JD Vandenberg (6). *Megachile rotundata* [Hymenoptera: Megachilidae]. Jun 79. USA: Ontario, Oregon.

Ascosphaera major (Proekschl & Zobl) Skou
[Plectomycetes: Ascospaerales]

- 694 JD Vandenberg (7) ← M Christensen ← JP Skou. [Hymenoptera]. 1970. Denmark.

Ascosphaera prolipeperda Skou
[Plectomycetes: Ascospaerales]

- 695 JD Vandenberg (8) ← M Christensen ← JP Skou. *Megachile centuncularis* [Hymenoptera: Megachilidae]. 1970. Denmark.
- 696 JD Vandenberg (9) ← M Christensen ← JP Skou. *Megachile rotundata* [Hymenoptera: Megachilidae]. Jul 81. Lab. manipulation.

Aspergillus sp.
[Hyphomycetes]

- 1152 TJ Poprawski (83-15). Adult, *Melanoplus* sp. [Orthoptera: Acrididae]. 29 Sep 83. Spain: Córdoba.
- 2765 GW Riethmacher (A3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 13 Apr 89. Philippines: La Trinidad, Benguet.
- 2817 GW Riethmacher (E1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 Apr 89. Philippines: La Trinidad, Benguet.
- 2820 GW Riethmacher (E7). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 May 89. Philippines: La Trinidad, Benguet.
- 3048 MS Goettel (5B). Vegetation. Jul 90. Mali: Mordiah. Eurotium state may also be present.
- 3176 GW Riethmacher (B22). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 22 Dec 89. Philippines: Cavinti, Laguna.
- 3195 GW Riethmacher (B47b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 6 Jun 90. Philippines: Villiasis, Pangasinan.
- 3698 LA Lacey (Ma16). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 8 Apr 92. India: Padappai.

Aspergillus flavus Link:Fries
[Hyphomycetes]

- 1003 J Aoki (Asp. 11). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.
- 1010 J Aoki (Asp. 26). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.
- 2157 BN Muthappa (PNG 12713). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.
- 2158 BN Muthappa (PNG 12714). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.
- 2159 BN Muthappa (PNG 12715). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.
- 2818 GW Riethmacher (E4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 7 Apr 89. Philippines: La Trinidad, Benguet.
- 2833 AE Hajek ← K Tatman (MD19#14). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 89. USA: Baltimore County, Maryland.
- 3144 MS Goettel. *Neobullieria citellivora* [Diptera: Sarcophagidae]. 2 Nov 90. Canada: Picture Butte, Alberta.
- 3430 K Ostrowska (52). [Diptera: Bombyliidae]. 29 Sep 91. Costa Rica: La Selva.

Aspergillus niger van Tieghem
[Hyphomycetes]

- 3143 MS Goettel (3B). [Orthoptera]. 17 Jul 90. Mali: Mordiah.

Aspergillus nr. *parasiticus* Speare
[Hyphomycetes]

- 2173 MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 86. Indonesia: Baritiwutung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.

Aspergillus ochraceus Wilhelm
[Hyphomycetes]

- 3325 C Castillo. *Ixodes scapularis* [Acari: Ixodidae]. Rec'd 8 May 91.

Basidiobolus sp.
[Zygomycetes: Entomophthorales]

- 270 RK Benjamin ← CW Emmons (2501). *Bufo marinus* (toad) dung. Rec'd Nov 78. USA: NIH lab, Bethesda, Maryland.
- 271 RK Benjamin ← CW Emmons (2502) ← Lie-Kian-Joe. Frog dung. Rec'd Nov 78. ?Indonesia.
- 273 RK Benjamin ← CW Emmons (2507) ← Deshpande. *Homo sapiens*. Rec'd Nov 78.

- 2048 D TeStrake (TL-10). Lizard dung. Rec'd 25 Nov 85. USA: Tampa, Florida.
- 2049 D TeStrake (TL-12). Lizard dung. Rec'd 25 Nov 85. USA: Tampa, Florida.
- 2050 D TeStrake (TL-13). Lizard dung. Rec'd 25 Nov 85. USA: Tampa, Florida.
- 2051 D TeStrake (TT-5). Toad dung. Rec'd 25 Nov 85. USA: Tampa, Florida.
- 2052 D TeStrake (TT-9). Toad dung. Rec'd 25 Nov 85. USA: Tampa, Florida.

Basidiobolus haptospora Drechsler
[Zygomycetes: Entomophthorales]

Synonym: *Basidiobolus meristosporus* Drechsler. *B. haptosporus* is a probable synonym of *B. ranarum*.

Caution: This species can cause human mycoses; most strains can be demonstrated to survive temperatures $\geq 37^{\circ}\text{C}$. Exercise caution to avoid inhalation of conidia or contact with cuts or abrasions.

- 261 [NRRL 1232; RSA 228] RK Benjamin ← CW Emmons. 4-year-old male, *Homo sapiens*. Rec'd Nov 78. Indonesia.
- 262 [RSA 964] RK Benjamin. Oak leaf mold. 10 May 60. USA: Rancho Santa Ana Botanical Garden, Claremont, California.
- 263 [RSA 1269] RK Benjamin. Lizard dung. 4 Apr 63. Mexico: La Suerte, Baja California.
- 264 [RSA 2252] RK Benjamin. Soil under Fremontodendron. Sep 76. USA: Rancho Santa Ana Botanical Garden, Claremont, California.
- 272 RK Benjamin ← CW Emmons (2505) ← Lie-Kian-Joe. *Homo sapiens*. Rec'd Nov 78. ?Indonesia. Human mycosis.
- 1347 S Balazy (1580b). [Diptera: Brachycera] attached to decayed wood in a brook. 11 Aug 83. Poland: Wielkopolski National Park.

Basidiobolus microsporus Benjamin
[Zygomycetes: Entomophthorales]

- 265 [RSA 962] RK Benjamin. Lizard dung. 5 Apr 60. USA: 5 mi NW of Agua Caliente Hot Springs, San Diego County, California.
- 266 [RSA 977] RK Benjamin. Lizard dung. 22 Apr 60. USA: 1 mi E of Tecopa Pass, Inyo County, California. CULTURE EX TYPE.
- 267 [RSA 982] RK Benjamin. Duff under debris outside packrat nest. 23 May 60. USA: 10 mi W of Barstow, Iron Mountain, California.
- 268 [RSA 1737] RK Benjamin. Lizard dung. 6 May 62. USA: 10 mi S of Weldon, el. 3000 ft, Kern County, California.
- 269 [RSA 2088] RK Benjamin. Rodent dung. 29 Jul 74. USA: nr. Cajon Pass, San Bernardino County, California.

Basidiobolus ranarum Eidam

[Zygomycetes: Entomophthorales]

Possible synonyms: *Basidiobolus haptosporus* Drechsler, *Basidiobolus meristosporus* Drechsler.

Caution: Strains of this species may be able to grow at temperatures $\geq 37^{\circ}\text{C}$ and may be regarded as potential mycotic agents for humans and other mammals. These strains should be safe in research and/or teaching laboratories with routine microbiological precautions; avoid inhalation of conidia or contact with open cuts or abrasions.

- 260 [RSA 334] RK Benjamin. Toad dung. 27 Apr 54. USA: Rancho Santa Ana Botanical Garden, Claremont, California.
- 1139 M Shimazu (F-57). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Acc'd 3 Apr 84. Japan: Saitama Prefecture.
- 2787 M Blackwell. Lizard dung. Acc'd 16 Aug 89. USA: Baton Rouge, Louisiana.

Batkoa apiculata (Thaxter) Humber

[Zygomycetes: Entomophthorales]

The nuclei of this taxon stain well and have granular contents when mounted in aceto-orcein or other nuclear stains. This entomophthoraceous fungus has a morphologically similar ancylistaceous fungus, *Conidiobolus pseudapiculatus* (q.v.), whose nuclei do not stain well and do not have granular contents.

- 395 S Keller (35). Larva, [Hymenoptera]. 10 Aug 76. Switzerland.
- 919 [ARSEF 1661] S Keller (450). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
- 927 [ARSEF 1660] S Keller (449). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
- 1660 [ARSEF 927] S Keller (449). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
- 1661 [ARSEF 919] S Keller (450). [Diptera: Sciaridae]. Nov 82. Switzerland: Zürich.
- 3224 P Folker-Hansen (E and 020590). *Bradysia paupera* [Diptera: Sciaridae]. 2 May 90. Denmark.
- 3225 P Folker-Hansen (F and 040590). *Bradysia paupera* [Diptera: Sciaridae]. 4 May 90. Denmark.
- 3226 P Folker-Hansen (I and 080990). *Bradysia paupera* [Diptera: Sciaridae]. 8 Sep 90. Denmark.

Batkoa gigantea (Keller) Humber

[Zygomycetes: Entomophthorales]

- 214 S Keller (74). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 78. Switzerland.
- 215 S Keller (75). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd Spring 78. Switzerland.
- 403 [FPMI 768] S Keller (36). *Tipula paludosa* [Diptera: Tipulidae]. 8 Sep 76. Switzerland.

Batkoa major (Thaxter) Humber

[Zygomycetes: Entomophthorales]

- 1427 RS Soper (84528-1). [Homoptera: Aphididae]. 28 May 84. Yugoslavia: plum orchard, Zemun, Belgrade.
- 2936 H Firstencel. *Empoasca fabae* [Homoptera: Cicadellidae]. 5 Jan 90. USA: laboratory colony, Ithaca, New York.
- 3102 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field #6G, Catherine, New York.
- 3103 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 4 Sep 90. USA: laboratory colony, Ithaca, New York.

Beauveria sp.

[Hyphomycetes]

Almost all of the strains listed here closely resemble *B. bassiana* (or *B. brongniartii*) but were not so identified because of small (and possibly insignificant) differences in conidia size and/or shape.

- 590 JM Lenné. *Mocis* sp. [Lepidoptera: Noctuidae]. Rec'd 13 Apr 81. Colombia: Carimagua.
- 1040 J Aoki (Beau. 2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Suginami, Tokyo Prefecture.
- 1195 TJ Poprawski (001). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 18 May 83. Italy: Vetralla, Lazio.
- 1196 TJ Poprawski (002). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 20 May 83. Italy: Vetralla, Lazio.
- 1197 TJ Poprawski (004). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 20 May 83. Italy: Vetralla, Lazio.
- 1198 TJ Poprawski (005). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 20 May 83. Italy: Vetralla, Lazio.
- 1199 TJ Poprawski (013). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 23 May 83. Italy: Manciano, Toscana.
- 1200 TJ Poprawski (014). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 23 May 83. Italy: Manciano, Toscana.
- 1201 TJ Poprawski (023). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
- 1202 TJ Poprawski (024). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
- 1203 TJ Poprawski (025). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
- 1204 TJ Poprawski (026). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.

- 1205 TJ Poprawski (027). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
- 1206 TJ Poprawski (028). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
- 1207 TJ Poprawski (030). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Vetralla, Lazio.
- 1208 TJ Poprawski (034). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 May 83. Italy: Piancastagnaio, Toscana.
- 1209 TJ Poprawski (035). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 22 May 83. Italy: Acquapendente, Lazio.
- 1210 TJ Poprawski (037). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.
- 1211 TJ Poprawski (038). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.
- 1213 TJ Poprawski (046). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.
- 1214 TJ Poprawski (047). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.
- 1215 TJ Poprawski (049). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.
- 1216 TJ Poprawski (050). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.
- 1218 TJ Poprawski (051). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.
- 1219 TJ Poprawski (052). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.
- 1220 TJ Poprawski (057). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.
- 1221 TJ Poprawski (059). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.
- 1222 TJ Poprawski (060). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.
- 1224 TJ Poprawski (061). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.
- 1327 TJ Poprawski (082). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 83. France: Saint-Laurent, Vosges.
- 1681 M Shimazu (F-333). *Shirahoshizo insidiosus* [Coleoptera: Curculionidae]. 27 Jan 82. Japan: Takao, Tokyo Prefecture.
- 1685 M Shimazu (F-450). *Lachnosterna morosa* [Coleoptera: Scarabaeidae]. Acc'd 2 Nov 84. Japan: Ibaraki Prefecture.
- 1835 SB Alves (295). *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 21 Jan 85. Brazil.
- 2164 BN Muthappa (PNG 12723). [Homoptera: Membracidae]. Rec'd 12 May 86. Papua New Guinea.
- 2412 K Narayanan (9). *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. Acc'd 6 May 87. India.
- 2997 MS Goettel. *Vespa vulgaris* [Hymenoptera: Vespidae]. 24 Feb 90. Canada: Lethbridge, Alberta.
- 3289 J Gutierrez Samperio (5) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- 3510 I Quintela (VL1). Rec'd 13 Dec 91.
- Beauveria amorphia* (von Hoehnel) Samson & Evans [Hyphomycetes]
- 1682 M Shimazu (F-357(11)). *Anomala cuprea* [Coleoptera: Scarabaeidae]. 20 Nov 80. Japan: Nagano Prefecture.
- 2251 IMI ← HC Evans (Ro 596). Adult, [Coleoptera]. Feb 80. Brazil: Belém, Pará.
- 2641 DW Roberts ← SB Alves (621). *Solenopsis* sp. [Hymenoptera: Formicidae]. Rec'd 23 Nov 88. Brazil: Alambari, São Paulo.
- Beauveria bassiana* (Balsamo) Vuillemin [Hyphomycetes]
- Major synonym: *Beauveria densa* (Link:Fries) Picard.
- 1 [ATCC 24318; FPMI 961] PW Schaefer. 1st instar larva, *Malacosoma americanum* [Lepidoptera: Lasiocampidae] on *Prunus maritima*. 18 Apr 72. USA: Chapin Beach, Dennis, Massachusetts.
- 149 M Wojciechowska (28). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 18 Jul 77. France.
- 150 M Wojciechowska (24). [Coleoptera: Elateridae]. Rec'd 18 Jul 77. France.
- 151 M Wojciechowska (17). *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd 18 Jul 77. France.
- 152 M Wojciechowska (310-76). *Pamphilius betulae* [Hymenoptera: Pamphiliidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.
- 153 M Wojciechowska (2-72). *Chrysopa* sp. [Neuroptera: Chrysopidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.
- 154 M Wojciechowska (51-75). *Pamphilius betulae* [Hymenoptera: Pamphiliidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.
- 155 M Wojciechowska (75-67). *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 18 Jul 77. Commonwealth of Independent States.

- 156 M Wojciechowska (1092). [Hymenoptera: Ichneumonidae] parasitic on lepidopteran. Rec'd 18 Jul 77. Poland.
- 157 M Wojciechowska (1110). *Anthicus floralis* [Coleoptera: Anthicidae]. Rec'd 18 Jul 77. Poland.
- 158 M Wojciechowska (N-2). Soil. Rec'd 18 Jul 77. Poland.
- 159 M Wojciechowska (70). Rec'd 18 Jul 77. Czechoslovakia.
- 160 M Wojciechowska (72). Rec'd 18 Jul 77. Czechoslovakia.
- 201 JD Vandenberg. *Diabrotica undecimpunctata* [Coleoptera: Chrysomelidae] on greenbeans. 22 Oct 77. USA: greenhouse, Corvallis, Oregon.
- 220 Boverin formulation. Rec'd Jun 78. Commonwealth of Independent States.
- 252 C Madore. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 14 Sep 78. USA: greenhouse, Orono, Maine.
- 275 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 276 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 277 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 278 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 279 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 280 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 281 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 282 Single spore reisolat of ARSEF 252. 4 Dec 78. Lab. manipulation.
- 283 DW Roberts ← O Alyoshina. Single spore reisolat of Boverin formulation. 2 Dec 78. Commonwealth of Independent States.
- 284 DW Roberts (N-2) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 285 DW Roberts (1110) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 286 DW Roberts (BSS-1) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 287 DW Roberts (BSS-2) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 288 DW Roberts (BSS-3) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 289 DW Roberts (BSS-4) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 290 DW Roberts (BSS-5) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 291 DW Roberts (3T) ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 292 DW Roberts ← O Alyoshina. Single spore reisolat of Boverin formulation. Apr 78. Commonwealth of Independent States.
- 293 DW Roberts ← CW McCoy. [Coleoptera].
- 295 DW Roberts ← CW Emmons. 2 Nov 78.
- 296 DW Roberts (CLB-2) ← E West-Davidson. 1967. USA: Ohio State University, Ohio.
- 299 RC Hedlund. Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Jun 78. Rumania: 1 km W of Pasarea on Rt. 3, Pasarea, Muntenia.
- 300 RS Soper. *Nysius vinitor* [Hemiptera: Lygaeidae] on sunflower. 17 Jan 79. Australia: Tamworth, New South Wales.
- 301 DW Roberts ← B Schaerffenberg. [Coleoptera]. Acc'd 23 Mar 79. Poland.
- 302 DW Roberts (Bbass-2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 303 DW Roberts (Bbass-3) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 304 DW Roberts (Bbass-4) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 305 DW Roberts (Bbass-5) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. 1967. Japan.
- 306 DW Roberts (SG-8). Acc'd Apr 79. USA: Ohio.
- 307 DW Roberts (SH-8). Acc'd Mar 79. USA: Ohio.
- 308 DW Roberts (I FAR) ← K Kawakami. Acc'd Mar 79. Japan.
- 317 RA LeBrun. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 27 Feb 79. USA: Rhode Island.
- 318 RA LeBrun. [Coleoptera: Cerambycidae]. Rec'd 27 Feb 79. USA: Rhode Island.
- 319 RA LeBrun. [Coleoptera: Cerambycidae]. Rec'd 27 Feb 79. Mexico.
- 320 GR Buckingham. *Mesovelia mulsanti* [Hemiptera: Mesoveliidae]. Dec 78. USA: Gainesville, Florida.
- 325 [CSIRO FI49] RS Soper. [Coleoptera: Nitidulidae] on maize. 14 Feb 79. Australia: Atherton, Queensland.
- 326 [CSIRO FI50] RS Soper ← R Teakle (M-168). *Chilo plejadellus* [Lepidoptera: Pyralidae]. Acc'd 26 Mar 79. Australia: Brisbane, Queensland.
- 333 DW Roberts (2A2-B(b)) or (SG-(G)) ← B Schaerffenberg. Single spore reisolat of ARSEF 301. 1970. Poland.

- 334 DW Roberts (2A3-B(a)) or (SG-(F)) ← B Schaerffenberg. Single spore reisolate of ARSEF 301. 1970. Poland.
- 335 DW Roberts (2B2-A) or (SG-(G)) ← B Schaerffenberg. Single spore reisolate of ARSEF 301. 1970. Poland.
- 336 C Russel. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 25 Aug 78. USA: Georgia.
- 337 C Russel. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 25 Aug 78. USA: Georgia.
- 338 T Nash (MIT1). *Neodiprion pini* [Hymenoptera: Diprionidae]. 21 Jun 78.
- 340 DW Roberts ← G Zimmermann. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 1965. Germany: Darmstadt, Hesse.
- 344 J Lindegren. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Feb 79. USA: Yakima, Washington.
- 350 IM Abalis.
- 353 C Gordon. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. May 78. USA: laboratory colony, Orono, Maine.
- 356 [CSIRO FI51] RS Soper (Bb-1). [Orthoptera: Acrididae]. 31 Jan 79. Australia: Armidale, New South Wales.
- 357 RS Soper (Bb-2). [Orthoptera: Acrididae]. 31 Jan 79. Australia: Armidale, New South Wales.
- 384 INRA. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Sep 79. France.
- 412 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 27 Jul 79. USA: Apopka, Florida.
- 413 CW McCoy. *Araecerus fasciculatus* [Coleoptera: Anthribidae]. 8 May 79. USA: Fruitland Park, Florida.
- 416 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 20 Jul 79. USA: Apopka, Florida.
- 433 *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 14 Jan 80.
- 474 C Bajan. Rec'd May 80. Poland.
- 477 RA Daoust (Bb-Z1). *Zulia entreriana* [Homoptera: Cercopidae]. 26 Jan 80. Brazil: Mato Grosso do Sul, Mato Grosso.
- 501 RL Jones. Larva, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 80. PR China.
- 502 RL Jones. Larva, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 80. PR China.
- 503 RA Humber and RS Soper. Larva, *Carpocapsa pomonella* [Lepidoptera: Olethreutidae] on pear. 12 Aug 80. Yugoslavia: orchard nursery nr. Zabari, Zabari, Serbia.
- 504 RS Soper. [Coleoptera: Chrysomelidae]. 12 Aug 80. Yugoslavia: orchard behind bus station, Zabari, Serbia.
- 505 RA Humber. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 14 Aug 80. Yugoslavia: potato field at road marker 119 on M22, nr. Srbobran.
- 506 RA Humber and RS Soper. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 14 Aug 80. Yugoslavia: road marker 82 on M22, nr. Srbobran, Freketic.
- 507 C Sidor and RS Soper. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 16 Aug 80. Yugoslavia: between Putnici and Indjija.
- 509 C Sidor. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 18 Aug 80. Yugoslavia: nr. Varazdin by transformer in field, Nedeljanec, Croatia.
- 510 RA Humber and RS Soper. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 26 Aug 80. Yugoslavia: Forestry Inst. Nursery, E of Pec, nr. Crno Brdo.
- 533 RL Jones. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Rec'd 11 Aug 80. PR China.
- 534 MG Ward. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Oct 80. USA: established laboratory colony, Boyce Thompson Institute, Ithaca, New York.
- 535 MG Ward. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd Oct 80. USA: newly established laboratory colony, Boyce Thompson Institute, Ithaca, New York.
- 536 MG Ward. Leaf wash. Rec'd Sep 80. USA: ARSEF 252 spray plot, Agway Research Farm, Tully, New York.
- 547 VA Dyck. *Pachybrachis pallicarnis* [Coleoptera: Chrysomelidae]. Malaysia.
- 560 RS Soper (8132). *Leptocoris* sp. [Hemiptera: Rhopalidae]. 2 Mar 81. Indonesia: SE of Mataram, Lombok Island.
- 566 RS Soper (81226-3). *Leptocoris* sp. [Hemiptera: Rhopalidae]. 26 Feb 81. Indonesia: N of Yogyakarta, Sleman District, Yogyakarta, Java.
- 652 DW Roberts (101981-1). *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. PR China: Beijing.
- 654 DW Roberts (102081-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 20 Oct 81. PR China: Wuhan, Hupei.
- 679 DW Roberts (102081-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 20 Oct 81. PR China: Wuhan, Hupei.
- 681 EA Gula ← O Alyoshina. Boverin formulation. Rec'd 1982. Commonwealth of Independent States.
- 708 L Hung-Kei (A). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 1981. PR China.
- 709 L Hung-Kei (E). *Nilaparvata lugens* [Homoptera: Delphacidae]. 1981. PR China.
- 714 DW Roberts (102181-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 717 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 11 Nov 81. PR China: Wuhan, Hupei.

- 718 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 81. PR China: Hangzhou, Zhejiang.
- 719 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 11 Nov 81. PR China: Wuhan, Hupei.
- 721 TB Clark. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Feb 82. Colombia: ?CIAT, Cali, Valle de Cauca.
- 730 [CNPAF 81-11-25-01; CP 1] RA Daoust. Adult, [Hymenoptera: Vespidae]. 25 Nov 81. Brazil: Costa do Arapapa, Amazonas.
- 731 [CNPAF 81-11-25-05; CP 5] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 81. Brazil: Costa do Surubin, Cristo Rei, Amazonas.
- 732 [CNPAF 81-11-25-07; CP 6] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 81. Brazil: Costa do Surubin, Cristo Rei, Amazonas.
- 733 [CNPAF 82-1-6-01; CP 7] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 734 [CNPAF 82-1-6-03; CP 9] RA Daoust ← G Pereira Rios. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 735 [CNPAF 82-1-15-02; CP 14] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 736 [CNPAF 82-1-6-04; CP 10] RA Daoust ← G Pereira Rios. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 737 [CNPAF 82-1-26-01; CP 20] RA Daoust ← E Ferreira. [Hemiptera: Pentatomidae]. 26 Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 738 [CNPAF 82-2-9-01; CP 23] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 9 Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 739 [CNPAF 82-2-3-01; CP 27] RA Daoust. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 3 Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 751 P Jolivet. [Coleoptera: Chrysomelidae]. Apr 82. Vietnam: Cuc Phuong Forest.
- 752 [CNPAF 82-2-15-01; CP 34] RA Daoust. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 753 [CNPAF 82-3-24-01; CP 36] RS Soper. *Aracanthus* sp. [Coleoptera: Curculionidae]. 24 Mar 82. Brazil: Brejo Santo, Ceará.
- 754 [CNPAF 82-4-4-01; CP 38] RA Daoust. [Coleoptera]. 4 Apr 82. Brazil: CNPAF, Goiânia, Goiás.
- 756 [CNPAF 81-11-25-04; CP 4] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Nov 81. Brazil: Costa do Surubin, Cristo Rei, Amazonas.
- 757 [CNPAF 82-3-23-01; CP 35] RA Daoust. [Coleoptera: Tenebrionidae]. 23 Mar 82. Brazil: Missão Velha, Ceará.
- 758 [CNPAF 82-3-1-03; CP 29] RA Daoust. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 1 Mar 82. Brazil: CNPAF, Goiânia, Goiás.
- 783 [CNPAF 82-5-6-02; CP 59] RA Daoust ← JPP de Araújo. Adult, [Coleoptera: Tenebrionidae]. 6 May 82. Brazil: Barbalha, Ceará.
- 784 [CNPAF 82-4-30-01C; CP 47] RA Daoust and JPP de Araújo. Adult, [Coleoptera: Elateridae]. 30 Apr 82. Brazil: Novo Oriente, Ceará.
- 785 [CNPAF 82-4-29-01; CP 46] RA Daoust. Adult, [Coleoptera: Cerambycidae]. 29 Apr 82. Brazil: Caucaia, Ceará.
- 786 [CNPAF 82-5-3-03B; CP 51] RA Daoust and FE de Araújo. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 82. Brazil: 20 km N of Pacajus, Ceará.
- 787 [CNPAF 82-5-6-01; CP 58] RA Daoust ← JPP de Araújo. Adult, [Coleoptera: Tenebrionidae]. 6 May 82. Brazil: Barbalha, Ceará.
- 788 [CNPAF 82-5-3-03A; CP 50] RA Daoust and FE de Araújo. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 82. Brazil: 20 km N of Pacajus, Ceará.
- 792 [KSU RLCO] WA Ramoska. Adult, *Blissus leucopterus* [Hemiptera: Lygaeidae]. Summer 81. USA: Riley County, Kansas.
- 793 GA Kuter (102). Leaf litter under sugar maple. 1975. USA: Abraham's Woods, University of Wisconsin Arboretum, Green County, Wisconsin.
- 796 DA Rodriguez Sierra ← BV Romero. [Dermaptera]. Jul 82. Colombia: Instituto Colombiana Agropecuario, Villavicencio, Meta.
- 804 [CNPAF 82-4-30-01D; CP 48] RA Daoust and JPP de Araújo. Adult, [Coleoptera: Elateridae]. 30 Apr 82. Brazil: Novo Oriente, Ceará.
- 805 [CNPAF 82-5-3-01; CP 49] RA Daoust ← LS Teixeira. *Crimissa* sp. [Coleoptera: Chrysomelidae]. 3 May 82. Brazil: Pacajus, Ceará.
- 806 [CNPAF 82-5-4-06; CP 53] RA Daoust ← SM dos Santos. *Deois flavopicta* [Homoptera: Cercopidae]. 4 May 82. Brazil: CNPAF, Goiânia, Goiás.
- 809 [CNPAF 82-6-28-01; CP 61] RA Daoust ← SM dos Santos. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 28 Jun 82. Brazil: CNPAF, Goiânia, Goiás.
- 812 GG Soares (3) ← G Euverte. Overwintering adults, *Corythucha ciliata* [Hemiptera: Tingidae]. 18 Feb 81. France: Avignon, Vaucluse.
- 813 GG Soares (6). 6th instar larva, *Otiiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.
- 814 GG Soares (10). 6th instar larva, *Otiiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.
- 815 GG Soares (12). 6th instar larva, *Otiiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.

- 816 GG Soares (20) ← JP Aeschlimann. 5th instar larva, *Sitona discoideus* [Coleoptera: Curculionidae]. 29 Mar 82. France: Montpellier, Hérault.
- 842 *Metamasius* sp. [Coleoptera: Curculionidae]. Colombia.
- 843 D Jansen. Pupa, [Lepidoptera: Saturniidae]. Costa Rica.
- 886 GG Soares (34) ← D Covtinot. Adult, *Lygus* sp. [Hemiptera: Miridae]. Sep 82. Spain: Burgos.
- 928 [CNPAF 82-07-27-01; CP 63] RA Daoust ← SM dos Santos. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 27 Jul 82. Brazil: CNPAF, Goiânia, Goiás.
- 930 [CNPAF 82-12-15-02; CP 68] RA Daoust ← SM dos Santos. [Coleoptera: Curculionidae]. Dec 82. Brazil: CNPAF, Goiânia, Goiás.
- 931 [CNPAF 82-12-20-01; CP 69] RA Daoust ← H da Silva Coelho. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 20 Dec 82. Brazil: CNPAF, Goiânia, Goiás.
- 933 [CNPAF 82-12-20-02; CP 71] RA Daoust ← E Ferreira. *Tibraca limbativentres* [Hemiptera: Pentatomidae]. 20 Dec 82. Brazil: CNPAF, Goiânia, Goiás.
- 934 [CNPAF 83-1-25-01; CP 72] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 25 Jan 83. Brazil: CNPAF, Goiânia, Goiás.
- 937 [CNPAF 83-3-3-01; CP 76] RA Daoust ← E Ferreira. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 3 Mar 83. Brazil: F. Itamaraty, Ponta Porã, Mato Grosso.
- 938 [CNPAF 83-3-3-02; CP 77] RA Daoust ← E Ferreira. *Diabrotica paranoense* [Coleoptera: Chrysomelidae]. 3 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 941 [CNPAF 83-03-16C; CP 82] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 942 [CNPAF 83-03-16D; CP 83] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 943 [CNPAF 83-03-16E; CP 84] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 944 [CNPAF 83-03-16F; CP 85] RA Daoust and BP Magalhães. [Hemiptera: Pentatomidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 945 [CNPAF 83-03-16G; CP 86] RA Daoust and BP Magalhães. [Homoptera: Cicadellidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 946 [CNPAF 83-03-15E; CP 87] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 947 [CNPAF 83-03-15-M; CP 88] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 948 [CNPAF 83-03-15-O; CP 89] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 949 [CNPAF 83-03-15-P; CP 90] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 950 [CNPAF 83-03-15-Q; CP 91] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 951 [CNPAF 83-03-15B; CP 92] RA Daoust and BP Magalhães. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 952 [CNPAF 83-03-15H; CP 93] RA Daoust and BP Magalhães. Adult, [Coleoptera: Carabidae]. Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 953 [CNPAF 83-03-16K; CP 98] RA Daoust and BP Magalhães. *Chalcodermus* sp. [Coleoptera: Curculionidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 956 [CNPAF 83-5-27; CP 101] RA Daoust ← SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 27 May 83. Brazil: CNPAF, Goiânia, Goiás.
- 957 [CNPAF 83-06-06-1; CP 102] RA Daoust. [Hymenoptera: ?Megachilidae]. 6 Jun 83. Brazil: CNPAF, Goiânia, Goiás.
- 958 [CNPAF 83-01-06A (CB 97); CP 104] RA Daoust ← SM de Carvalho. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 6 Jan 83. Brazil: Londrina, Paraná.
- 959 [CNPAF 83-01-06B (CB 15); CP 105] RA Daoust ← SM de Carvalho. *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 6 Jan 83. Brazil: Londrina, Paraná.
- 982 [CNPAF 83-03-17B; CP 95] RA Daoust and BP Magalhães. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 17 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 1001 J Aoki (Beau. 5) ← K Katagiri ← T Kushida. *Dio-ryctria sylvestrella* [Lepidoptera: Pyralidae]. Dec 68. Japan: Hachioji, Tokyo Prefecture.
- 1007 J Aoki (Beau. 3). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.
- 1016 ME McGiffen. *Conotrachelus nenuphar* [Coleoptera: Curculionidae]. Nov 83.
- 1017 HS Whitney (R599). Adult, *Dendroctonus rufipennis* [Coleoptera: Scolytidae]. Jun 75. Canada: nr. Hixon, British Columbia.
- 1038 G Riba. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Fall 83. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1039 L Allee. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 83. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

- 1041 J Aoki (Isa. 1) ← S Miyajima. *Psacotha hilaris* [Coleoptera: Cerambycidae]. Oct 81. Japan: Nagakute, Aichi Prefecture.
- 1053 [CNPS 14] F Moscardi. [Orthoptera: Acrididae]. 1983. Brazil: Londrina, Paraná.
- 1054 [CNPS 15] F Moscardi. *Nezara viridula* [Hemiptera: Pentatomidae]. 1983. Brazil: Londrina, Paraná.
- 1060 [CNPS 31] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: Londrina, Paraná.
- 1061 [CNPS 32] F Moscardi ← Francisco. [Coleoptera: Curculionidae]. 1983. Brazil: Londrina, Paraná.
- 1073 TJ Poprawski (83-48). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jul 83. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.
- 1074 TJ Poprawski (83-49). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jul 83. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.
- 1075 TJ Poprawski (83-54). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 21 Jul 83. France: tree nursery containers, Les Thilliers-en-Vexin, Eure.
- 1079 *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Acc'd Feb 84. USA: Washington.
- 1081 L Allee. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 83. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1098 Y Ando. *Nephotettix cincticeps* [Homoptera: Cicadellidae]. 20 Feb 83. Japan: Insectron Experiment Station, Tsukuba, Ibaraki Prefecture.
- 1103 [ARSEF 1558] KV Deseo (8) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 81. Italy: Bologna, Emilia-Romagna.
- 1104 KV Deseo (10) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 81. Italy: Bologna, Emilia-Romagna.
- 1105 KV Deseo (17). Larva, *Zeuzera pyrina* [Lepidoptera: Cossidae]. Jan 82. Italy: Galliera.
- 1106 KV Deseo (25) ← Chianella. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Feb 82. Italy: Sicily.
- 1107 KV Deseo (26) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Mar 82. Italy: Modena, Emilia-Romagna.
- 1110 KV Deseo (31) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 82. Italy: Modena, Emilia-Romagna.
- 1113 KV Deseo (38). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. Jun 82. Italy: insect colony, Bologna, Emilia-Romagna.
- 1114 KV Deseo (39). Larva, *Galleria mellonella* [Lepidoptera: Pyralidae]. Jun 82. Italy: insect colony, Bologna, Emilia-Romagna.
- 1115 KV Deseo (40A) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae]. Aug 82. Italy: Ravenna, Emilia-Romagna.
- 1117 KV Deseo (41) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae] with hymenopterous parasite. Aug 82. Italy: Ravenna, Emilia-Romagna.
- 1118 KV Deseo (45) ← Maini. Larva, *Sesamia cretica* [Lepidoptera: Noctuidae]. Sep 82. Italy: Forli, Emilia-Romagna.
- 1119 KV Deseo (47). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. Oct 82. Italy: Modena, Emilia-Romagna.
- 1121 KV Deseo (81) ← Chianella. Pupa, *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Mar 82. Italy: Padua, Venetia.
- 1122 KV Deseo (83). *Cydia pomonella* [Lepidoptera: Tortricidae]. Mar 83. Italy: Bologna, Emilia-Romagna.
- 1149 TJ Poprawski (83-79). 3rd instar larva, *Heliothis armigera* [Lepidoptera: Noctuidae]. 4 Aug 83. Spain: Córdoba.
- 1150 TJ Poprawski (83-37). Adult, [Diptera: Tachinidae] parasitic on *Sitona lineatus* [Coleoptera: Curculionidae]. 17 Nov 83. France: Senneville.
- 1151 TJ Poprawski (83-05). Pupa, *Delia radicum* [Diptera: Anthomyiidae]. 24 Aug 83. Canada: L'Acadie, Québec.
- 1153 TJ Poprawski (074). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.
- 1154 TJ Poprawski (072). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 25 Jan 84. Morocco: Jramma.
- 1155 TJ Poprawski (073). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.
- 1156 TJ Poprawski (83-639). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 22 Oct 83. France: Guyancourt, Yvelines.
- 1157 TJ Poprawski (83-619). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.
- 1158 TJ Poprawski (83-634). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Vernon, Eure.
- 1159 TJ Poprawski (83-615). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.
- 1160 TJ Poprawski (83-614). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.
- 1161 TJ Poprawski (83-626). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Mantes-la-Jolie, Yvelines.
- 1162 TJ Poprawski (83-623). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Limay, Yvelines.
- 1163 TJ Poprawski (071A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.
- 1164 TJ Poprawski (070). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Jan 84. Morocco: Jramma.

- 1165 TJ Poprawski (83-621). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.
- 1166 TJ Poprawski (83-77). 3rd instar larva, *Heliothis armigera* [Lepidoptera: Noctuidae]. 2 Aug 83. Spain: Córdoba.
- 1167 TJ Poprawski (83-701). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Nov 83. France: Senneville.
- 1168 TJ Poprawski (83-702). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 10 Oct 83. France: Senneville.
- 1169 TJ Poprawski (83-703). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Senneville.
- 1170 TJ Poprawski (83-704). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. 23 Nov 83. France: Senneville.
- 1171 TJ Poprawski (A2). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
- 1172 TJ Poprawski (A4). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
- 1173 TJ Poprawski (A5). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 16 Feb 84. Morocco: Achouria.
- 1174 TJ Poprawski (A6). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Achouria.
- 1175 TJ Poprawski (A7). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 10 Feb 84. Morocco: Achouria.
- 1176 TJ Poprawski (J1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Jan 84. Morocco: Jorf.
- 1177 TJ Poprawski (J2). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Jan 84. Morocco: Jorf.
- 1178 TJ Poprawski (J3). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 7 Feb 84. Morocco: Jorf.
- 1179 TJ Poprawski (J4). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 2 Dec 83. Morocco: Jorf.
- 1180 TJ Poprawski (J5). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 2 Dec 83. Morocco: Jorf.
- 1181 TJ Poprawski (J6). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 10 Feb 84. Morocco: Jorf.
- 1182 TJ Poprawski (83-616). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Senneville.
- 1183 TJ Poprawski (J7). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 16 Feb 84. Morocco: Jorf.
- 1185 [INRA Bb-142] TJ Poprawski. *Sitona discoideus* [Coleoptera: Curculionidae]. May 77. France: Viols-le-Fort, Hérault.
- 1186 [INRA Bb-195] TJ Poprawski. Adult, *Caryedon serratus* [Coleoptera: Bruchidae]. 6 Jun 83. France: La Minière.
- 1188 TJ Poprawski (E1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Elbaya.
- 1189 TJ Poprawski (A1). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Achouria.
- 1190 TJ Poprawski (A3). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Feb 84. Morocco: Achouria.
- 1191 TJ Poprawski (645). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Dec 83. France: Orléans, Loiret.
- 1192 TJ Poprawski (646). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Anet, Eure-et-Loir.
- 1193 TJ Poprawski (647). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Ecos, Eure.
- 1194 TJ Poprawski (648). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Dec 83. France: Meulan, Yvelines.
- 1269 [IRRI Pal. 2] MC Rombach. *Leptocoris oratorius* [Hemiptera: Rhopalidae] on rice. Acc'd 3 May 84. Philippines: Palawan.
- 1270 [IRRI O2III] MC Rombach. *Leptocoris oratorius* [Hemiptera: Rhopalidae] on rice. Acc'd 3 May 84. Philippines: Palawan.
- 1306 TJ Poprawski (83-611). Adult, *Sitona lineatus* [Coleoptera: Curculionidae]. Oct 83. France: Senneville.
- 1309 TJ Poprawski (A8). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
- 1311 TJ Poprawski (A10). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
- 1312 TJ Poprawski (A11). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
- 1313 TJ Poprawski (A12). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
- 1314 TJ Poprawski (070A). 3rd instar larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. 6 Mar 84. France: La Minière.
- 1315 TJ Poprawski (070B). 3rd instar larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. 6 Mar 84. France: La Minière.
- 1316 TJ Poprawski (070C). 3rd instar larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. 6 Mar 84. France: La Minière.
- 1317 TJ Poprawski (074A). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 18 Mar 83. France: Choisy-en-Brie, Haute-Savoie.
- 1318 TJ Poprawski (074B). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 18 Mar 83. France: Choisy-en-Brie, Haute-Savoie.
- 1319 TJ Poprawski (076). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.
- 1320 TJ Poprawski (078). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.
- 1321 TJ Poprawski (079B). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.
- 1322 TJ Poprawski (079C). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.
- 1323 TJ Poprawski (079D). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.

- 1324 TJ Poprawski (079E). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.
- 1325 TJ Poprawski (079F). Nymph, *Lygus ?lineolaris* [Hemiptera: Miridae]. 30 Mar 83. France: Senneville.
- 1326 TJ Poprawski (080). Nymph, [Orthoptera: Acrididae]. 27 Jun 83. France: Prades, Pyrénées-Orientales.
- 1359 S Balazy (1597a). Rec'd 19 May 84. Poland.
- 1389 TJ Poprawski (088). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 84. France: Baron.
- 1394 TJ Poprawski (071). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 18 Aug 83. France: Choisy-en-Brie, Haute-Savoie.
- 1395 TJ Poprawski (075). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 23 Aug 83. France: Saint-Denis du Pin, Seine-Saint-Denis.
- 1396 TJ Poprawski (077A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 30 Aug 83. France: Senneville.
- 1397 TJ Poprawski (077B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 30 Aug 83. France: Senneville.
- 1398 TJ Poprawski (086). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 16 May 84. France: Marsanne, Drôme.
- 1399 TJ Poprawski (087). Adult, *Hypera postica* [Coleoptera: Curculionidae]. Mar 84. France: Marsanne, Drôme.
- 1404 TJ Poprawski (092A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 9 Sep 83. France: Fort la Latte.
- 1405 TJ Poprawski (092B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 9 Sep 83. France: Fort la Latte.
- 1406 TJ Poprawski (093A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.
- 1407 TJ Poprawski (093B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.
- 1408 TJ Poprawski (094A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.
- 1409 TJ Poprawski (094B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.
- 1410 TJ Poprawski (095). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.
- 1411 TJ Poprawski (096A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.
- 1412 TJ Poprawski (096B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 7 Sep 83. France: Fort la Latte.
- 1413 TJ Poprawski (097). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 13 Oct 83. France: Senneville.
- 1414 TJ Poprawski (099). Nymph, *Lygus* sp. [Hemiptera: Miridae]. May 84. France: Senneville.
- 1450 [CNPAF 52; CP 125] F Moscardi. *Sternechus subsignatus* [Coleoptera: Curculionidae]. 27 Mar 84. Brazil: Londrina, Paraná.
- 1453 [CNPAF 84-02-30-2; CP 143] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.
- 1454 [CNPAF 84-03-28-1F; CP 144] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.
- 1455 [CNPAF 84-03-28-D; CP 145] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.
- 1456 [CNPAF 84-04-03-6A; CP 146] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 30 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1457 [CNPAF 84-03-28-1A; CP 147] RA Daoust. *Podisus* sp. [Hemiptera: Pentatomidae]. 28 Mar 84. Brazil: Cascavel, Paraná.
- 1458 [CNPAF 84-03-28-1E; CP 148] RA Daoust. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.
- 1459 [CNPAF 84-04-03-1E; CP 149] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1460 [CNPAF 84-04-03-1B; CP 150] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1461 [CNPAF 84-03-29-1; CP 151] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 29 Mar 84. Brazil: Capitão Leônidas Marques, Paraná.
- 1462 [CNPAF 84-03-28-1G; CP 152] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.
- 1463 [CNPAF 84-03-28-1L; CP 153] RA Daoust. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 84. Brazil: Cascavel, Paraná.
- 1464 [CNPAF 84-04-03-6B; CP 154] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1465 [CNPAF 84-04-03-1A; CP 155] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1466 [CNPAF 84-03-31-6; CP 156] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 31 Mar 84. Brazil: Sto. Antonio do Sudoeste, Paraná.
- 1467 [CNPAF 84-04-02-5A; CP 157] RA Daoust and BP Magalhães. *Cerotoma* sp. [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: São Carlos, Santa Catarina.
- 1468 [CNPAF 84-04-02-5B; CP 158] RA Daoust and BP Magalhães. [Hymenoptera: Apoidea]. 2 Apr 84. Brazil: São Carlos, Santa Catarina.
- 1469 [CNPAF 84-03-31-2; CP 159] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 31 Mar 84. Brazil: Sto. Antonio do Sudoeste, Paraná.

- 1470 [CNPAF 84-04-02-3; CP 160] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.
- 1471 [CNPAF 84-04-02-4; CP 161] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.
- 1472 [CNPAF 84-04-02-2; CP 162] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.
- 1473 [CNPAF 84-04-02-1B; CP 163] RA Daoust, BP Magalhães and M Pinat. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.
- 1474 [CNPAF 84-04-02-1A; CP 164] RA Daoust, BP Magalhães and M Pinat. *Nezara viridula* [Hemiptera: Pentatomidae]. 2 Apr 84. Brazil: Chapecó, Santa Catarina.
- 1475 [CNPAF 84-04-03-1C; CP 165] RA Daoust and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1476 [CNPAF 84-04-25-1; CP 166] SM dos Santos. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 25 Apr 84. Brazil: CNPAF, Goiânia, Goiás.
- 1478 SB Alves (256). *Euschistus heros* [Hemiptera: Pentatomidae] on soybean. Rec'd 6 Jul 84. Brazil: Goiás.
- 1479 SB Alves (246). *Stenomoma decora* [Lepidoptera: Stenomatinae] on cacao. Rec'd 6 Jul 84. Brazil: Bahia.
- 1480 SB Alves (252). *Hypothenemus hampei* [Coleoptera: Scolytidae] on coffee. Rec'd 6 Jul 84. Brazil: São Paulo.
- 1483 SB Alves (61). *Cosmopolites sordidus* [Coleoptera: Curculionidae] on banana. Rec'd 6 Jul 84. Brazil: Espírito Santo.
- 1484 SB Alves (196). *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. Rec'd 6 Jul 84. Brazil: Pernambuco.
- 1491 [INRA Bb-169] GG Soares. *Sitona humeralis* [Coleoptera: Curculionidae]. Mar 81. France: Lusignan, Vienne.
- 1509 I Majchrowicz (56) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.
- 1510 I Majchrowicz (58) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.
- 1511 I Majchrowicz (75) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.
- 1512 TJ Poprawski (0102A). Adult, *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 21 Jun 84. France: La Minière.
- 1513 TJ Poprawski (0102B). Adult, *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 21 Jun 84. France: La Minière.
- 1514 TJ Poprawski (0103A). Pupa, *Musca autumnalis* [Diptera: Muscidae]. 13 Jun 84. France: Le Trait, Seine-Maritime.
- 1515 TJ Poprawski (0107). Adult, *Hypera postica* [Coleoptera: Curculionidae]. 13 Jun 84. France.
- 1516 TJ Poprawski (0108). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 19 Aug 84. France: Senneville.
- 1517 TJ Poprawski (0109). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 19 Jun 84. France: Dagny.
- 1518 TJ Poprawski (0111). Adult, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. 27 Jun 84. France: Entraigues, Vaucluse.
- 1519 TJ Poprawski (0112). Adult, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. 27 Jun 84. France: Entraigues, Vaucluse.
- 1520 TJ Poprawski (0117A). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 27 Jun 84. France: Prades, Pyrénées-Orientales.
- 1521 TJ Poprawski (0117B). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 27 Jun 84. France: Prades, Pyrénées-Orientales.
- 1523 TJ Poprawski (0122). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. France: Ronce.
- 1524 TJ Poprawski (0123). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. France: Ronce.
- 1525 TJ Poprawski (0124A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.
- 1526 TJ Poprawski (0124B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.
- 1527 TJ Poprawski (0125). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.
- 1528 TJ Poprawski (0126). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Manciano, Toscana.
- 1529 TJ Poprawski (0127A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.
- 1531 TJ Poprawski (0127B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.
- 1533 TJ Poprawski (0128A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1534 TJ Poprawski (0128B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1535 TJ Poprawski (0130A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.

- 1536 TJ Poprawski (0130B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1537 TJ Poprawski (0131A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1538 TJ Poprawski (0131B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1539 TJ Poprawski (0132). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1540 TJ Poprawski (0133A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1553 RS Soper (B). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.
- 1554 RS Soper (C). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.
- 1555 RS Soper (D). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.
- 1556 RS Soper (E). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae] on rice. 5 Jul 84. Japan: CIBA-Geigy rearings, Osaka, Osaka Prefecture.
- 1558 [ARSEF 1103] KV Deseö (8) ← Goidanich. Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Jun 81. Italy: Bologna, Emilia-Romagna.
- 1559 KV Deseö (88) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.
- 1560 KV Deseö (89) ← Campadelli. *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.
- 1561 KV Deseö (90) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.
- 1562 KV Deseö (91) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.
- 1563 KV Deseö (92) ← Campadelli. Larva, *Aromia moscata* [Coleoptera: Cerambycidae]. Feb 84. Italy: Solarolo.
- 1564 KV Deseö (103) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).
- 1565 KV Deseö (109) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).
- 1566 S Keller (D155). [Coleoptera: Scolytidae]. 14 Aug 84. Switzerland: Siblingen, Schaffhausen.
- 1567 S Keller (D156). [Coleoptera: Scolytidae]. 14 Aug 84. Switzerland: Siblingen, Schaffhausen.
- 1619 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1620 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1621 L Allee. Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 6 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1622 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 27 Jul 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1623 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 27 Jul 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1624 L Allee. Larva, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 30 Jul 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1627 TJ Poprawski (0104). Larva, [Lepidoptera: Noctuidae]. 13 Jun 84. Hungary: Gödöllő.
- 1628 TJ Poprawski (0105). Larva, [Lepidoptera: Noctuidae]. 13 Jun 84. Hungary: Gödöllő.
- 1629 TJ Poprawski (0106). Larva, [Lepidoptera: Noctuidae]. 13 Jun 84. Hungary: Gödöllő.
- 1630 TJ Poprawski (0118A). Larva, *Calliphora* sp. [Diptera: Calliphoridae]. 27 Jun 84. France: Sèvres, Yvelines.
- 1635 TJ Poprawski (0133B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 27 Jun 84. Austria: Burgenland.
- 1636 TJ Poprawski (0134). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 11 Jul 84. Austria: Burgenland.
- 1637 TJ Poprawski (0135A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
- 1638 TJ Poprawski (0135B). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
- 1640 TJ Poprawski (0137). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
- 1643 TJ Poprawski (0140). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
- 1647 TJ Poprawski (0143). Adult, *Sitona* sp. [Coleoptera: Curculionidae]. 22 Aug 84. France: Orval, Ardennes.
- 1648 TJ Poprawski (0144). Adult, *Lygus* sp. [Hemiptera: Miridae]. 22 Aug 84. France: Charente.
- 1649 TJ Poprawski (0145). Adult, *Lygus* sp. [Hemiptera: Miridae]. 22 Aug 84. France: Drôme.
- 1650 TJ Poprawski (0146). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. 22 Aug 84. France: Saint-Denis du Pin, Seine-Saint-Denis.
- 1651 Abbott Laboratories (122-1). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.
- 1652 Abbott Laboratories (106(2)). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.

- 1653 Abbott Laboratories (114(2)). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.
- 1654 Abbott Laboratories (112). 1984 formulation of ARSEF 252. Acc'd 11 Oct 84.
- 1677 M Shimazu (F-185). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. 26 Jul 76. Japan: Ishikawa Prefecture.
- 1678 M Shimazu (F-237). *Moechotypa diphysis* [Coleoptera: Cerambycidae]. Aug 78. Japan: Tsushima, Nagasaki Prefecture.
- 1679 M Shimazu (F-263). *Monochamus alternatus* [Coleoptera: Cerambycidae]. 25 Aug 78. Japan: Kumamoto Prefecture.
- 1683 M Shimazu (F-359(30)). *Anomala cuprea* [Coleoptera: Scarabaeidae]. 20 Nov 80. Japan: Nagano Prefecture.
- 1689 Abbott Laboratories (AARC 8401-A(1)). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.
- 1690 Abbott Laboratories (AARC 8401-A(2)). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.
- 1691 Abbott Laboratories (AARC 8401-B). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.
- 1692 Abbott Laboratories (AARC 8401-D). 1984 formulation of ARSEF 252. Acc'd 5 Nov 84.
- 1704 L Allee (84-1). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1705 L Allee (84-3). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1706 L Allee (84-4). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1707 L Allee (84-5). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1708 L Allee (84-7). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1709 L Allee (84-8). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1710 L Allee (84-9). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1711 L Allee (84-10). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 8 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1712 L Allee (84-11). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1713 L Allee (84-12). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1721 L Allee (84-13). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 17 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1722 L Allee (84-19). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1723 L Allee (84-20). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1747 Abbott Laboratories (124). 1984 formulation of ARSEF 252. Acc'd 6 Dec 84.
- 1748 Abbott Laboratories (Bb029-13,"3 of 4"). 1983 formulation of ARSEF 252. Acc'd 6 Dec 84.
- 1749 L Allee (84-16). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 17 Aug 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1750 L Allee (84-18). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. 31 Aug 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1775 L Allee (84-22). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1776 L Allee (84-23). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: control plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1777 L Allee (84-24). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: insecticide-treated plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1778 L Allee (84-25). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1779 L Allee (84-26). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: low rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1780 L Allee (84-27). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.

- 1781 L Allee (84-28). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Fall 84. USA: high rate plot for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 1782 Abbott Laboratories (102A). 1984 formulation of ARSEF 252. Acc'd 11 Jan 85.
- 1783 Abbott Laboratories (104, 106). 1984 formulation of ARSEF 252. Acc'd 11 Jan 85.
- 1788 TJ Poprawski (0147). Larva, *Heliothis virescens* [Lepidoptera: Noctuidae]. Acc'd 22 Jan 85. Spain.
- 1789 TJ Poprawski (0148A). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Saint-Laurent, Vosges.
- 1790 TJ Poprawski (0148B). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Saint-Laurent, Vosges.
- 1791 TJ Poprawski (0149). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Saint-Laurent, Vosges.
- 1792 TJ Poprawski (0150A). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Fiancey.
- 1793 TJ Poprawski (0150B). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Fiancey.
- 1794 TJ Poprawski (0150C). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Fiancey.
- 1795 TJ Poprawski (0151). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Marsanne, Drôme.
- 1796 TJ Poprawski (0152A). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.
- 1797 TJ Poprawski (0152B). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.
- 1798 TJ Poprawski (0152C). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.
- 1799 TJ Poprawski (0152D). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Choisy-en-Brie, Haute-Savoie.
- 1800 TJ Poprawski (0154). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Septeuil, Yvelines.
- 1801 TJ Poprawski (0155). Adult, *Adelphocoris* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. France: Septeuil, Yvelines.
- 1802 TJ Poprawski (0156). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Heronia.
- 1803 TJ Poprawski (0157). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Heronia.
- 1804 TJ Poprawski (0158A). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1805 TJ Poprawski (0158B). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1806 TJ Poprawski (0158C). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1807 TJ Poprawski (0159A). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1808 TJ Poprawski (0159B). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1809 TJ Poprawski (0160). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bocequillas.
- 1810 TJ Poprawski (0161). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1811 TJ Poprawski (0167C). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.
- 1812 TJ Poprawski (0163). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Thessaloniki.
- 1813 TJ Poprawski (0164A). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1814 TJ Poprawski (0164B). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Spain: Bahabon de Esgueva.
- 1815 TJ Poprawski (0165). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.
- 1816 TJ Poprawski (0166A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.
- 1817 TJ Poprawski (0166B). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.
- 1818 TJ Poprawski (0166C). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.
- 1819 TJ Poprawski (0166D). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Hauteban.
- 1820 TJ Poprawski (0167A). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.
- 1821 TJ Poprawski (0167B). Adult, *Sitona discoideus* [Coleoptera: Curculionidae]. Acc'd 22 Jan 85. Morocco: Jorf.
- 1822 TJ Poprawski (0162). Adult, *Lygus* sp. [Hemiptera: Miridae]. Acc'd 22 Jan 85. Greece: Thessaloniki.

- 1831 SB Alves (63). *Atta* sp. [Hymenoptera: Formicidae]. Rec'd 21 Jan 85. Brazil.
- 1832 SB Alves (197). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 21 Jan 85. Brazil.
- 1833 SB Alves (267). *Cosmopolites* sp. [Coleoptera: Curculionidae]. Rec'd 21 Jan 85. Brazil.
- 1834 SB Alves (268). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 21 Jan 85. Brazil.
- 1836 SB Alves (309). *Terastia meticulosalis* [Lepidoptera: Pyralidae]. Rec'd 21 Jan 85. Brazil.
- 1838 Abbott Laboratories (102B(2)). 1984 formulation of ARSEF 252. Acc'd 29 Jan 85.
- 1839 Abbott Laboratories (106). 1984 formulation of ARSEF 252. Acc'd 29 Jan 85.
- 1842 Abbott Laboratories (Bb028-5F). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.
- 1843 Abbott Laboratories (Bb028-138). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.
- 1844 Abbott Laboratories (Bb028-148). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.
- 1845 Abbott Laboratories (Bb028-150). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.
- 1846 Abbott Laboratories (Bb029-13). 1983 formulation of ARSEF 252. Acc'd 13 Feb 85.
- 1848 HS Whitney (R629) ← HA Moeck. Adult, *Rhizophagus grandis* [Coleoptera: Rhizophagidae]. Sep 84. Belgium.
- 1849 HA Moeck and HS Whitney (R630). Adult, *Dendroctonus ponderosae* [Coleoptera: Scolytidae]. Oct 84. Canada: Lye Lake Plot, Riske Creek, British Columbia.
- 1850 HS Whitney (R633) ← IS Otvos. Larva, *Choristoneura* sp. [Lepidoptera: Tortricidae]. Jun 83. Canada: Terrace, British Columbia.
- 1852 P Spencer and HS Whitney (R634). *Dryocoetes confusus* [Coleoptera: Scolytidae]. Jun 84. Canada: Top of the World Park, British Columbia.
- 1853 HS Whitney (R636) ← HA Moeck. Larva, *Dendroctonus ponderosae* [Coleoptera: Scolytidae]. 5 Oct 84. Canada: laboratory colony, British Columbia.
- 1854 HA Moeck and HS Whitney (R637). Adult, *Pytho* sp. [Coleoptera: Pythidae]. Oct 84. Canada: Lye Lake Plot, Riske Creek, British Columbia.
- 1855 P Spencer and HS Whitney (R640). Adult, *Ips* sp. [Coleoptera: Scolytidae]. Jul 84. Canada: Christina Lake, British Columbia.
- 1864 TJ Poprawski (0168). Adult, *Delia antiqua* [Diptera: Anthomyiidae]. Acc'd 25 Mar 85. France: La Minière.
- 1865 TJ Poprawski (0169). Adult, *Delia antiqua* [Diptera: Anthomyiidae]. Acc'd 25 Mar 85. France: La Minière.
- 1866 TJ Poprawski (0170). Adult, *Delia antiqua* [Diptera: Anthomyiidae]. Acc'd 25 Mar 85. France: La Minière.
- 1886 H David. *Chilo infuscatellus* [Lepidoptera: Pyralidae] on sugar cane. Rec'd 1 Jun 85. India: Sugarcane Breeding Institute, Coimbatore, Tamil Nadu.
- 1889 Abbott Laboratories (1985-3-69). 1985 formulation of ARSEF 252. Acc'd 6 Jun 85.
- 1953 [CNPAF 85-7-23; CP 178] JC Lord and BP Magalhães. [Hymenoptera: Vespidae]. 23 Jul 85. Brazil: Santana do Ipanema, Alagoas.
- 1954 [CNPAF 85-7-23-1; CP 179] JC Lord and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 23 Jul 85. Brazil: Santana do Ipanema, Alagoas.
- 1955 [CNPAF 85-7-23-2; CP 180] JC Lord and BP Magalhães. [Diptera: Muscidae]. 23 Jul 85. Brazil: Santana do Ipanema, Alagoas.
- 1956 [CNPAF 85-7-22; CP 181] JC Lord and BP Magalhães. *Coleomegilla maculata* [Coleoptera: Coccinellidae]. 22 Jul 85. Brazil: União dos Palmares, Alagoas.
- 1959 [CNPAF 85-7-24-2; CP 185] JC Lord and BP Magalhães. [Orthoptera: Acrididae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.
- 1960 [CNPAF 85-7-24-3; CP 186] JC Lord and BP Magalhães. [Hymenoptera: Formicidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.
- 1961 [CNPAF 85-7-24-4; CP 187] JC Lord and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.
- 1962 [CP 188] JC Lord and BP Magalhães. [Diptera]. Jul 85. Brazil: Ribeira do Pombal, Bahia.
- 1966 [CP 168] D Gabriel. *Anthonomus grandis* [Coleoptera: Curculionidae]. 1983. Brazil: Fazenda St. Genebra, Campinas, São Paulo.
- 1969 KV Raman. *Premnotrypes suturicallus* [Coleoptera: Curculionidae]. 1985. Peru: Andes Mountains.
- 1971 [ARSEF 1451 (deaccessioned); CNPAF 84-3-12; CP 124] H da Silva Coelho. [Coleoptera: Chrysomelidae]. 12 Mar 84. Brazil: CNPAF, Goiânia, Goiás.
- 1973 TJ Poprawski (0176). Adult, [Hemiptera: Pentatomidae]. Acc'd 25 Sep 85. Austria: Burgenland.
- 1974 TJ Poprawski (0177). Adult, [Hemiptera: Pentatomidae]. Acc'd 25 Sep 85. Austria: Burgenland.
- 1975 TJ Poprawski (0178). Adult, [Coleoptera: Carabidae]. Acc'd 25 Sep 85. France: Saint-Genys.
- 1976 TJ Poprawski (0179). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.
- 1977 TJ Poprawski (0180). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.
- 1978 TJ Poprawski (0181). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.
- 1979 TJ Poprawski (0182). Adult, [Hymenoptera: Formicidae: Myrmicinae]. Acc'd 25 Sep 85. France: Saint-Genys.

- 1980 TJ Poprawski (0183). Adult, [Coleoptera]. Acc'd 25 Sep 85. France: Saint-Genys.
- 1982 TJ Poprawski (0185). Egg, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Acc'd 25 Sep 85. France: La Repara.
- 1984 TJ Poprawski (0187). Adult, [Hemiptera: Pentatomidae]. Acc'd 25 Sep 85. France: Drôme.
- 1988 TJ Poprawski (0175). Adult, *Nabis* sp. [Hemiptera: Nabidae]. Acc'd 25 Sep 85. Austria: Burgenland.
- 2010 CIRPON ← M Yasem de Romero. *Cycloneda sanguinea* [Coleoptera: Coccinellidae]. 1984. Argentina: Tucumán.
- 2011 CIRPON ← M Yasem de Romero. *Nezara viridula* [Hemiptera: Pentatomidae]. 1984. Argentina: Tucumán.
- 2030 HS Whitney (CPB-1). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 2031 HS Whitney (CPB-2). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] in soil. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 2032 HS Whitney (CPB-3). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] in soil. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 2033 HS Whitney (LBB-multi). *Coccinella* sp. [Coleoptera: Coccinellidae]. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 2034 HS Whitney (LBB-multi 2). *Coccinella* sp. [Coleoptera: Coccinellidae]. Oct 85. USA: low rate plot (2) for ARSEF 252 spray tests, Agway Research Farm, Tully, New York.
- 2040 MC Rombach (171085-1) ← SB Ahn (E5-1). [Coleoptera: Curculionidae]. 17 Oct 85. Korea.
- 2041 MC Rombach (281085-1). Larva, *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 28 Oct 85. Philippines: IRRI field, Los Baños, Manila.
- 2054 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.
- 2075 [CNPAF 85-7-24; CP 183] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.
- 2079 [CP 198] JC Lord and BP Magalhães. *Systema* sp. [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.
- 2191 [CNPAF 86-3-26; CP 201] JFS Martins. *Oebalus pocius* [Hemiptera: Pentatomidae]. 26 Mar 86. Brazil: Fazenda Palmital, CNPAF, Goiânia, Goiás.
- 2236 LS Osborne (UK-3(1)). *Rhizococcus* sp. [Homoptera: Pseudococcidae] in soil. Acc'd 8 Sep 86.
- 2248 DA Rodriguez Sierra (106 Bb). *Premnotrypes vorax* [Coleoptera: Curculionidae]. Feb 86. Colombia: Tibaitata, Mosquera, Nariño.
- 2249 DA Rodriguez Sierra (203 Bb). Adult, *Ancognatha scarabaeoides* [Coleoptera: Scarabaeidae]. Feb 86. Colombia: Tibaitata, Mosquera, Nariño.
- 2250 DA Rodriguez Sierra (201 Bb). *Ancognatha scarabaeoides* [Coleoptera: Scarabaeidae]. Feb 86. Colombia: Tibaitata, Mosquera, Nariño.
- 2253 TJ Poprawski (8629). Larva, *Autographa gamma* [Lepidoptera: Noctuidae] on alfalfa. Jul 86. France: Orgerus, Yvelines.
- 2254 TJ Poprawski (8630). Larva, *Autographa gamma* [Lepidoptera: Noctuidae] on alfalfa. 8 Aug 86. France: Orgerus, Yvelines.
- 2267 FPMI. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 1986. Canada: Ontario.
- 2270 BT Forschler (RF-2). Adult, *Cyrtopistomus castaneus* [Coleoptera: Curculionidae]. Sep 86. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky.
- 2271 BT Forschler (RF-3). Adult, *Cyrtopistomus castaneus* [Coleoptera: Curculionidae]. Sep 86. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky.
- 2297 DA Rodriguez Sierra (103 Bb). Larva, *Brassolis* sp. [Lepidoptera: Brassolidae]. Oct 85. Colombia: Cumaral, Meta.
- 2318 TJ Poprawski (8642). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 3 Nov 86. France: Corbeil-Cerf, Essonne.
- 2319 TJ Poprawski (8643). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 3 Nov 86. France: Corbeil-Cerf, Essonne.
- 2320 TJ Poprawski (8644). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 6 Nov 86. France: Garancières, Yvelines.
- 2321 TJ Poprawski (8645). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 6 Nov 86. France: Garancières, Yvelines.
- 2322 TJ Poprawski (8646). Nymph, *Lygus* sp. [Hemiptera: Miridae] on alfalfa. 6 Nov 86. France: Garancières, Yvelines.
- 2330 PI Espinosa Camarena. *Diabrotica virgifera* [Coleoptera: Chrysomelidae]. 1986. Mexico: Zapotlanejo, Jalisco.
- 2336 [ARSEF 2883] M Feng (SGBB8601). *Schizaphis graminum* [Homoptera: Aphididae] on spring wheat. 9 Jul 86. USA: Apple Valley Rd. & Klahr Rd., Parma, Idaho.
- 2360 MC Rombach (041186-1). 4 Nov 86.
- 2402 [ESALQ 483] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Sep 86. Brazil: Mato Grosso.
- 2403 [ESALQ 484] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Sep 86. Brazil: Mato Grosso.

- 2404 [ESALQ 447] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Sep 86. Brazil: Mato Grosso.
- 2417 [SBI 87-1] H David. *Emmalocera depressella* [Lepidoptera: Phycitinae]. Acc'd 19 May 87. India.
- 2427 DG Holdom (100287-2a). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2430 SV Krueger. *Blissus leucopterus* [Hemiptera: Lygaeidae]. Mar 80. USA: Wakefield, Kansas.
- 2454 [NCTC 2227] UAMH (1514) ← IMI (12942) ← T Petch. [Diptera]. Rec'd 1 Jun 87. Sri Lanka.
- 2455 UAMH (4132) ← GS Bulmer (05-78). *Alligator mississippiensis* [Crocodylia: Alligatoridae]. May 78. USA: City Zoo, Oklahoma City, Oklahoma.
- 2457 TJ Poprawski (8701) ← AJ Nasca (Bb-T11). *Nezara viridula* [Hemiptera: Pentatomidae]. 1984. Argentina: Tucumán.
- 2458 TJ Poprawski (8702). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 27 Mar 87. France: Béhoust, Yvelines.
- 2461 TJ Poprawski (8706). Adult, *Lygus pratensis* [Hemiptera: Miridae]. 26 Mar 87. France: Béhoust, Yvelines.
- 2462 TJ Poprawski (8707). Nymph, *Lygus* sp. [Hemiptera: Miridae]. 3 Jun 87. France: Béhoust, Yvelines.
- 2463 TJ Poprawski (8710). Adult, *Galerucina* sp. [Coleoptera: Chrysomelidae]. 2 Feb 87. France: Béhoust, Yvelines.
- 2484 SR Sánchez Peña (Trachym 1). *Atta mexicana* [Hymenoptera: Formicidae]. 20 Dec 86. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.
- 2485 SR Sánchez Peña (Trachym 2). *Atta mexicana* [Hymenoptera: Formicidae]. 20 Dec 86. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.
- 2486 SR Sánchez Peña (Trachym 3). *Atta mexicana* [Hymenoptera: Formicidae]. 20 Dec 86. Mexico: El Fuerte, Sinaloa. Restricted until September 1994.
- 2487 SR Sánchez Peña. [Hymenoptera: Formicidae]. 13 Jun 87. Mexico: Monterrey, Nuevo León. Restricted until September 1994.
- 2509 [CP 229] DR Sosa Gomez. *Mauobupis morosi* [Coleoptera: Chrysomelidae]. 8 Apr 86. Argentina: La Virginia, Tucumán.
- 2511 [CP 221] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. Acc'd 8 Dec 87. Brazil: CNPS, Londrina, Paraná.
- 2512 [CP 237] J Maria. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 29 Jun 87. Brazil: Manaus, Amazonas.
- 2515 [CP 227] DR Sosa Gomez. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 28 Mar 86. Argentina: Blanco Pozo, Tucumán.
- 2516 [CP 228] DR Sosa Gomez. *Nezara viridula* [Hemiptera: Pentatomidae]. Jun 86. Argentina: Yerba Bueno, Tucumán.
- 2519 [CP 223] F Moscardi. *Podisus* sp. [Hemiptera: Pentatomidae]. 1984. Brazil: CNPS, Londrina, Paraná.
- 2520 [CP 222] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: CNPS, Londrina, Paraná.
- 2544 SR Sánchez Peña. [Homoptera: Cicadidae]. 20 Nov 87. Mexico: San Pedro (Chipinque), Nuevo Leon.
- 2545 SR Sánchez Peña. [Hymenoptera: Sphecidae]. 22 Jun 87. Mexico: San Pedro (Chipinque), Nuevo Leon.
- 2557 S Sandoval (95). Adult, [Coleoptera: Cerambycidae]. Acc'd 18 Mar 88. Ecuador.
- 2559 [ARSEF 2638; CP 230] SB Alves (290). *Anthonomus grandis* [Coleoptera: Curculionidae]. Acc'd 13 Apr 88. Brazil: ESALQ, Piracicaba, São Paulo.
- 2570 C Bradley (GMP1). Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.
- 2571 C Bradley (GMP2). Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.
- 2572 C Bradley. *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.
- 2573 C Bradley. *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 16 Jun 88. USA: woodlot, nr. Dover, Delaware.
- 2579 JJ Jackson. *Diabrotica barberi* [Coleoptera: Chrysomelidae]. 18 Jul 88. USA: laboratory colony, Brookings, South Dakota.
- 2580 MD Bryan. Adult, *Coccinella septempunctata* [Coleoptera: Coccinellidae]. Jul 88. USA: laboratory cages, field collected population, Niles, Michigan.
- 2597 RC Rajak (ENT/42). *Hyblaea puer* [Lepidoptera: Hyblaeidae] on teak, *Tectona grandis*. Acc'd 12 Sep 88. India.
- 2619 SB Alves (721). *Brassolis saphorae* [Lepidoptera: Brassolidae]. Apr 88. Brazil: Moju, Pará.
- 2621 SB Alves (726). Rec'd 7 Oct 88.
- 2624 [CP 239] Reisolat from *Cosmopolites sordidus* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88.
- 2625 [CNPAF 88-5-6; CP 240] DW Roberts ← EC de Moura. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 6 May 88. Brazil: CNPAF, Goiânia, Goiás.
- 2626 [CNPAF 88-5-6A; CP 241] DW Roberts ← EC de Moura. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 6 May 88. Brazil: CNPAF, Goiânia, Goiás.
- 2629 [CNPAF Pl-196; CP 244] DW Roberts ← Planalsucar. *Diatraea saccharalis* [Lepidoptera: Pyralidae]. 11 Feb 85. Brazil: Usina Salgado, Ipojuca, Pernambuco.
- 2630 [CNPAF 63; CP 246] DW Roberts ← SB Alves. 5 Oct 84. Brazil: Piracicaba, São Paulo.
- 2631 [CNPAF 258; CP 247] DW Roberts ← SB Alves. 5 Oct 84. Brazil: Piracicaba, São Paulo.

- 2632 [CNPAF 267; CP 248] DW Roberts ← SB Alves. 5 Dec 84. Brazil: Piracicaba, São Paulo.
- 2633 [CNPAF 268; CP 249] DW Roberts ← SB Alves. Larva, [Lepidoptera]. 9 Feb 83. Brazil: Piracicaba, São Paulo.
- 2636 [CNPAF 88-6-17; CP 254] DW Roberts ← SM dos Santos. Laboratory contaminant. 17 Jun 88. Brazil: CNPAF, Goiânia, Goiás.
- 2637 [CNPAF 88-6-22; CP 255] DW Roberts ← E Dias Quintela. Larva, [Lepidoptera]. 22 Jun 88. Brazil: Caucaia, Ceará.
- 2638 [ARSEF 2559; CP 230] DW Roberts ← SB Alves (290). *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88. Brazil: ESALQ, Piracicaba, São Paulo.
- 2639 DW Roberts ← SB Alves (292). *Anthonomus grandis* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88. Brazil: ESALQ, Piracicaba, São Paulo.
- 2642 DW Roberts ← SB Alves (695). *Metamasius hemipterus* [Coleoptera: Curculionidae]. Rec'd 23 Nov 88. Brazil: Londrina, Paraná.
- 2676 WA Gardner and RD Harrison. Adult, *Curculio caryae* [Coleoptera: Curculionidae] on pecan. 25 Aug 88. USA: Griffin, Georgia.
- 2685 [IMI 327908] C Prior (Kenya 1). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Kenya.
- 2686 [IMI 327909] C Prior (Kenya 2). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Kenya.
- 2687 [IMI 330194] C Prior (Kenya 3). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Kenya.
- 2688 [IMI 327910] C Prior (Togo 1). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.
- 2689 [IMI 329064] C Prior (Togo 2). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.
- 2690 [IMI 329065] C Prior (Togo 3). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.
- 2691 [IMI 329066] C Prior (Togo 4). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.
- 2692 [IMI 329067] C Prior (Togo 5). *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Togo.
- 2693 [IMI 327906] C Prior. *Hypothenemus hampei* [Coleoptera: Scolytidae]. Rec'd 19 Mar 89. Mexico.
- 2694 [IMI 328059] C Prior. *Larinus* sp. [Coleoptera: Curculionidae]. Rec'd 19 Mar 89. Switzerland.
- 2695 Abbott Laboratories (89-201). *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 24 Mar 89. Commonwealth of Independent States.
- 2722 [Evans BioControl 447] B Bennett. *Solenopsis* sp. [Hymenoptera: Formicidae]. Acc'd 30 May 89. Brazil.
- 2723 [Evans BioControl 479] B Bennett. *Solenopsis* sp. [Hymenoptera: Formicidae]. Acc'd 30 May 89. Brazil.
- 2725 GW Riethmacher (B10C). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 4 Mar 89. Philippines: La Trinidad, Benguet.
- 2727 GW Riethmacher (L1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 27 Jan 89. Philippines: La Trinidad, Benguet.
- 2728 GW Riethmacher (L2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 27 Jan 89. Philippines: La Trinidad, Benguet.
- 2729 GW Riethmacher (L3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 17 Mar 89. Philippines: La Trinidad, Benguet.
- 2737 GW Riethmacher (BP). *Bombyx mori* [Lepidoptera: Bombycidae]. 23 Dec 88. Philippines: La Trinidad, Benguet.
- 2739 GW Riethmacher (BB). Boverin formulation passed through *Plutella xylostella* [Lepidoptera: Plutellidae]. 28 Dec 88. Philippines: La Trinidad, Benguet.
- 2748 GW Riethmacher (B13A). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 11 Mar 89. Philippines: Atok, Benguet.
- 2785 RA Humber. Reisolate of ARSEF 32 passed through *Locusta migratoria* [Orthoptera: Acrididae]. Jul 89. Lab. manipulation.
- 2831 AE Hajek ← K Tatman (MD99#6). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 89. USA: Baltimore County, Maryland.
- 2857 SR Sánchez Peña (3-2). Pupa, [Lepidoptera]. Jul 87. Mexico: Pueblo Nuevo, Durango.
- 2860 M Feng (SG8702). *Schizaphis graminum* [Homoptera: Aphididae] on spring wheat. 17 Jul 87. USA: Parma, Idaho.
- 2861 M Feng (DN8803). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 7 Jul 88. USA: Parma, Idaho.
- 2864 M Feng (DN8804). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 19 Jul 88. USA: Parma, Idaho.
- 2869 J Peña ← J Fortier. *Bephratelloides cubensis* [Hymenoptera: Eurytomidae]. 7 Jul 89. USA: Homestead, Florida.
- 2879 M Feng (DN8805). *Diuraphis noxia* [Homoptera: Aphididae] on late spring barley. 27 Jul 88. USA: Parma, Idaho.
- 2880 M Feng (SG8701). *Schizaphis graminum* [Homoptera: Aphididae] on spring wheat. 17 Jul 87. USA: Parma, Idaho.
- 2881 M Feng (SG8801). *Schizaphis graminum* [Homoptera: Aphididae] on late spring barley. 28 Jul 88. USA: Parma, Idaho.
- 2882 M Feng (DN8806). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 19 Jul 88. USA: Parma, Idaho.
- 2883 [ARSEF 2336] M Feng (SGBB8601). *Schizaphis graminum* [Homoptera: Aphididae] on winter wheat. Jun 86. USA: Parma, Idaho.

- 2938 [CP 270] SP Wraight ← R da Silva Carvalho. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 8 Nov 88. Brazil: CNPAF, Goiânia, Goiás.
- 2942 [CP 274] SP Wraight ← MGA de Lima. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 28 Nov 88. Brazil: CNPAF, Goiânia, Goiás.
- 2943 [CP 275] SP Wraight ← SM dos Santos and DR Sosa Gomez. [Hymenoptera: Vespidae]. 8 Dec 88. Brazil: CNPAF, Goiânia, Goiás.
- 2944 [CP 276] SP Wraight ← LG Leite. [Hymenoptera: Vespidae]. 16 Dec 88. Brazil: CNPAF, Goiânia, Goiás.
- 2945 [CP 290] SP Wraight ← SB Alves. *Anthonomus grandis* [Coleoptera: Curculionidae]. 1988. Brazil: Piracicaba, São Paulo.
- 2946 [CP 281] SP Wraight ← SB Alves. *Anthonomus grandis* [Coleoptera: Curculionidae]. 1988. Brazil: Piracicaba, São Paulo.
- 2953 [UAF 189] DC Steinkraus. Adult, *Musca domestica* [Diptera: Muscidae]. 21 Jul 89. USA: dairy farm, Cayuga County, New York.
- 2957 CENARGEN (CG 145). Rec'd 14 Mar 90. Brazil: Manaus, Amazonas.
- 2961 CENARGEN (CG 165). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.
- 2962 CENARGEN (CG 166). Egg, *Schirius* sp. [Lepidoptera: Saturniidae]. Rec'd 14 Mar 90. Brazil: Curitiba, Paraná.
- 2972 K Ostrovska. *Phlebotomus papatasi* [Diptera: Psychodidae]. Rec'd 1 Oct 91. England: laboratory colony, London School for Tropical Medicine & Hygiene, London.
- 2976 DM Schmidt. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. 14 Mar 90. USA: Centre County, Pennsylvania.
- 2983 T Searle (CW1). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1988. Canada: Saint-Jean, Québec.
- 2984 T Searle (CW2). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1988. Canada: Saint-Jean, Québec.
- 2985 T Searle (CW3). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1989. Canada: Saint-Jean, Québec.
- 2986 T Searle (CW4). Adult, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1989. Canada: Saint-Jean, Québec.
- 2987 T Searle (LD1). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.
- 2988 T Searle (LD2). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.
- 2989 T Searle (LD3). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.
- 2990 T Searle (LD4). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.
- 2991 T Searle (LD5). Adult, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Summer 88. Canada: Sainte-Clotilde, Québec.
- 3018 CENARGEN (CG 68). *Forficula auricularia* [Dermaptera: Forficulidae]. Apr 88. Brazil: Brasília, Federal District.
- 3019 CENARGEN (CG 69). *Deois flavopicta* [Homoptera: Cercopidae]. Apr 88. Brazil: Brasília, Federal District.
- 3020 CENARGEN (CG 86). *Diatraea saccharalis* [Lepidoptera: Pyralidae]. Rec'd 20 Jul 90. Brazil: Pernambuco.
- 3037 W Mechaber (weevil#2354). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Gaylussacia baccata*. 20 May 90. USA: Carver, Massachusetts.
- 3040 WE Jones (SHB). [Coleoptera: Scolytidae] inside macadamia nut kernel. May 90. USA: Kona, Hawaii, Hawaii.
- 3041 WE Jones (499v2). *Reticulitermes flavipes* [Isoptera: Rhinotermitidae]. Rec'd 7 Aug 90. Canada: Toronto, Ontario.
- 3042 WE Jones (Hara). Phylum Nemata, Class Secernem-tia. Rec'd 7 Aug 90. USA: Hawaii, Hawaii.
- 3055 [MAF F6] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: South Island.
- 3063 [MAF F13] T Glare. *Sitona* sp. [Coleoptera: Curculionidae]. Rec'd Oct 90. New Zealand: South Island.
- 3065 [MAF F28] T Glare. *Otiiorhynchus sulcatus* [Coleoptera: Curculionidae]. Rec'd Oct 90. New Zealand: South Island.
- 3066 [MAF F29] T Glare. *Paropsis charybdis* [Coleoptera: Chrysomelidae]. Rec'd Oct 90. New Zealand: South Island.
- 3070 [MAF F33] T Glare. *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: Christchurch, South Island.
- 3086 J Peña ← H Glenn. *Leptoglossus fulvicornis* [Hemiptera: Coreidae] on holly. 7 Sep 90. USA: Homestead, Florida.
- 3098 L Loch ← G Albuquerque. *Oryzophagus oryzae* [Coleoptera: Curculionidae] on rice. Rec'd 29 Oct 90. Brazil: Pôrto Alegre, Rio Grande do Sul.
- 3111 DW Watson ← L Meinke. *Diabrotica virgifera* [Coleoptera: Chrysomelidae]. 13 Sep 90. USA: Mead, Nebraska.
- 3112 DW Watson ← JK Cawthra. [Coleoptera: Staphylinidae] originally from beef feed lot. 10 Sep 90. USA: laboratory colony, Lincoln, Nebraska.
- 3113 [CIRI Anderson Isolate] LC Lewis. Soil isolate passed through *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Apr 90. Lab. manipulation: Iowa State Univ. Research Farm.

- 3120 G Mercadier and TJ Poprawski (8851). [Homoptera: Aphididae] on *Senecio* sp. 10 Jun 88. France: Béhoust, Yvelines.
- 3121 G Mercadier and TJ Poprawski (8852). [Homoptera: Aphididae] on *Urtica* sp. 10 Jun 88. France: Garancières, Yvelines.
- 3153 G Mercadier and TJ Poprawski (8809A). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Beypazari, Ankara.
- 3154 G Mercadier and TJ Poprawski (8809B). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Beypazari, Ankara.
- 3155 G Mercadier and TJ Poprawski (8809C). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Akyurt, Ankara.
- 3156 G Mercadier and TJ Poprawski (8809D). *Diuraphis noxia* [Homoptera: Aphididae] on barley. Jun 88. Turkey: Akyurt, Ankara.
- 3157 G Mercadier and TJ Poprawski (8809E). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 14 Jun 88. Turkey: Güdül, Ankara.
- 3158 G Mercadier and TJ Poprawski (8809G). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 13 Jun 88. Turkey: Karasar, Ankara.
- 3166 G Mercadier and TJ Poprawski (8835A). *Diuraphis noxia* [Homoptera: Aphididae] on barley. Jun 88. Turkey: Beypazari, Ankara.
- 3167 G Mercadier and TJ Poprawski (8835B). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 13 Jun 88. Turkey: Ayas, Ankara.
- 3168 G Mercadier and TJ Poprawski (8835C). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 12 Jun 88. Turkey: Sirkeli, Ankara.
- 3169 G Mercadier and TJ Poprawski (8835D). *Diuraphis noxia* [Homoptera: Aphididae] on barley. 13 Jun 88. Turkey: Urus.
- 3181 GW Riethmacher (B37a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 12 Mar 90. Philippines: Plaridel, Quezon.
- 3197 GW Riethmacher (Bet1). [Coleoptera] on potatoes. 12 Oct 90. Philippines: La Trinidad, Benguet.
- 3198 GW Riethmacher (Bet2). [Coleoptera] on potatoes. 12 Oct 90. Philippines: La Trinidad, Benguet.
- 3199 GW Riethmacher (Bet3). [Coleoptera] on potatoes. 12 Oct 90. Philippines: La Trinidad, Benguet.
- 3215 G Mercadier and TJ Poprawski (8854 (second form)). Reisolate of ARSEF 3122 passed through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 27 Nov 90. Lab. manipulation.
- 3216 LK Rieske. *Thrips calcaratus* [Thysanoptera: Thripidae]. Summer 91. USA: Rusk County, Wisconsin.
- 3219 [CP 478(479?)] DW Roberts ← JM Gomes. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Rec'd 8 Feb 91. Brazil.
- 3220 LA Lacey. *Cydia pomonella* [Lepidoptera: Tortricidae]. Rec'd Feb 91. Portugal.
- 3285 J Gutierrez Samperio (1) ← ERD Reyes. *Atta* sp. [Hymenoptera: Formicidae]. 1987. Mexico: Monterrey, Nuevo León.
- 3286 J Gutierrez Samperio (2) ← ERD Reyes. *Spodoptera littoralis* [Lepidoptera: Noctuidae]. 1987. France: Montpellier, Hérault.
- 3287 J Gutierrez Samperio (3) ← ERD Reyes. *Diabrotica* sp. [Coleoptera: Chrysomelidae] on corn. 1988. Mexico: Colima.
- 3288 J Gutierrez Samperio (4) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- 3309 J Gutierrez Samperio (25) ← ERD Reyes. *Diabrotica balteata* [Coleoptera: Chrysomelidae] on corn. 1990. Mexico: Colima.
- 3310 J Gutierrez Samperio (26) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Comala, Colima.
- 3311 J Gutierrez Samperio (27) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.
- 3312 J Gutierrez Samperio (28) ← ERD Reyes. [Homoptera: Membracidae] on sugar cane. 1990. Mexico: Cuauhtémoc, Colima.
- 3385 I Majchrowicz (25-a). *Myzus persicae* [Homoptera: Aphididae] on potato. 11 Jul 91. USA: Orchard Farm, Yakima, Washington.
- 3386 I Majchrowicz (23). [Coleoptera: Carabidae] nr. potato plants. 3 Jul 91. USA: garden nr. USDA laboratory, Yakima, Washington.
- 3387 I Majchrowicz (40). *Myzus persicae* [Homoptera: Aphididae] on cabbage. Jul 91. USA: laboratory cages, Yakima, Washington.
- 3403 MS Goettel. *Ceutorhynchus litura* [Coleoptera: Curculionidae]. Rec'd 6 Mar 92.
- 3404 AE Hajek (24). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: C & O Canal, Allegany County, Maryland.
- 3405 AE Hajek (18). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: Koontz Lokey, Page County, Virginia.
- 3437 [CATIE 1] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Rec'd 28 Oct 91. Costa Rica: Turrialba, Cartago.
- 3438 [CATIE 2] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.
- 3439 [CATIE 3] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.
- 3441 [CATIE 5] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Bixa orellana*. Aug 91. Costa Rica: Turrialba, Cartago.

- 3442 [CATIE 6] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Aug 91. Costa Rica: Turrialba, Cartago.
- 3443 [CATIE 7] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.
- 3444 [CATIE 8] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Aug 91. Costa Rica: Turrialba, Cartago.
- 3445 [CATIE 9] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.
- 3446 [CATIE 10] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Aug 91. Costa Rica: Turrialba, Cartago.
- 3447 [CATIE 11] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Jul 91. Costa Rica: Turrialba, Cartago.
- 3448 [CATIE 12] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.
- 3449 [CATIE 13] TG Zoebisch. [Hemiptera: Miridae] on *Erythrina* sp. Apr 91. Costa Rica: Turrialba, Cartago.
- 3450 [CATIE 14] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Jul 91. Costa Rica: Turrialba, Cartago.
- 3451 [CATIE 15] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Jul 91. Costa Rica: Turrialba, Cartago.
- 3452 [CATIE 16] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Jul 91. Costa Rica: Turrialba, Cartago.
- 3453 [CATIE 17] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.
- 3454 [CATIE 18] TG Zoebisch. [Hemiptera: Miridae] on *Erythrina* sp. Apr 91. Costa Rica: Turrialba, Cartago.
- 3455 [CATIE 19] TG Zoebisch. *Nodonata* sp. [Coleoptera: Chrysomelidae] on *Biza orellana*. Jul 91. Costa Rica: Turrialba, Cartago.
- 3456 [CATIE 20] TG Zoebisch. [Hemiptera: Miridae] on *Erythrina* sp. Apr 91. Costa Rica: Turrialba, Cartago.
- 3457 [CATIE 21] TG Zoebisch. [Coleoptera: Languriidae] on *Macadamia integrifolia*. Sep 91. Costa Rica: Turrialba, Cartago.
- 3460 SV Krueger (540). Soil. Jun 91. USA: Smith Forest, Trumansburg, New York.
- 3462 MS Goettel (MISI). Soil. 12 Jul 91. Canada: nr. Magrath, Alberta.
- 3513 I Quintela (VL5). Rec'd 13 Dec 91.
- 3514 I Quintela (VL6). Rec'd 13 Dec 91. Colombia.
- 3515 I Quintela (VL7). Rec'd 13 Dec 91.
- 3516 I Quintela. Rec'd 13 Dec 91.
- 3527 AE Hajek (58a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: nr. Ruckersville, Greene County, Virginia.
- 3528 AE Hajek (61c). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 91. USA: Belle Acre, Allegheny County, Pennsylvania.
- 3529 AE Hajek (73a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: Resurrection, Prince Georges County, Maryland.
- 3530 AE Hajek (220b). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: nr. Piclic Run, Allegany County, Maryland.
- 3534 SM DeFazio and PD McKown (C-7). *Coccinella septempunctata* [Coleoptera: Coccinellidae]. Nov 91.
- 3543 M Brownbridge (B-33). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 19 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3607 IMI (I91-612). *Anacridium aegyptium*. Rec'd 26 Feb 92. Crete.
- 3620 IMI (Mycotech). *Melanoplus* sp. [Orthoptera: Acrididae]. Rec'd 26 Feb 92. USA.
- 3622 IMI (331275). [Orthoptera]. Rec'd 26 Feb 92. USA.
- 3667 AE Hajek (BFMS). [Coleoptera: Curculionidae]. Apr 91. USA: New York.
- 3681 LS Osborne. Organic Naturalis. Rec'd Apr 92.
- 3716 RA LeBrun ← J Hanula (C-2). Adult, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 92.
- 3717 RA LeBrun ← J Hanula (C-3). *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 91.
- 3734 SB Alves (447). Rec'd 12 Jun 92.

Beauveria brongniartii (Saccardo) Petch
[Hyphomycetes]

Major synonym: *Beauveria tenella* (Saccardo) MacLeod.

- 32 JE Henry. [Orthoptera: Acrididae]. 12 Jul 73. USA: Montana.
- 617 ATCC (26156) ← P Ferron (6). Larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Rec'd 27 May 81. France.
- 656 DW Roberts (101481-5). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 14 Oct 81. PR China: Hunan.
- 678 DW Roberts (101481-4-1). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 14 Oct 81. PR China: Hunan.
- 979 [GCRI 64-82] RA Hall ← J Fargues. *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 83. France.
- 985 J Aoki (Beau. 22) ← K Katagiri ← T Kushida. *Anomala costata* [Coleoptera: Scarabaeidae]. Nov 71. Japan: Hachioji, Tokyo Prefecture.

- 1067 TJ Poprawski ← S Keller (117). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 10 May 82. Switzerland: Buhwil, Thurgau.
- 1068 TJ Poprawski ← S Keller (118). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 10 May 82. Switzerland: Buhwil, Thurgau.
- 1069 TJ Poprawski ← S Keller (119). *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd Feb 84. Switzerland. Mixture of 3 strains.
- 1070 TJ Poprawski ← S Keller (120). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Jul 82. Switzerland: Breitenloo, Thurgau.
- 1071 TJ Poprawski ← S Keller (125). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 83. Switzerland: Bleiken, Thurgau.
- 1072 TJ Poprawski ← S Keller (126). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 83. Switzerland: Bleiken, Thurgau.
- 1076 S Keller (131). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 6 Jan 83. Switzerland: Istighofen, Thurgau.
- 1077 S Keller (134). 2nd instar larva, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 8 Dec 83. Switzerland: Bleiken, Thurgau.
- 1360 S Balazy (1599). Rec'd 19 May 84. Poland.
- 1366 S Balazy (1594d). Rec'd 19 May 84. Poland.
- 1431 MC Rombach (A). *Nipponoclea* sp. [Coleoptera: Cerambycidae] on forest litter. Apr 84. Philippines: UPLB Botanical Garden, Los Baños, Manila.
- 1676 M Shimazu (F-77). *Anomala costata* [Coleoptera: Scarabaeidae]. 11 Oct 71. Japan: Daimon, Nagano Prefecture.
- 1680 M Shimazu (F-313). *Psacotha hilaris* [Coleoptera: Cerambycidae]. Oct 81. Japan: Takao, Tokyo Prefecture.
- 1829 [ARSEF 1481 (lost)] SB Alves (258). *Castnia licus* [Lepidoptera: Castniidae] on sugar cane. Acc'd 29 Jan 85. Brazil: Pernambuco.
- 1830 [ARSEF 1482 (lost)] SB Alves (210). *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. Acc'd 29 Jan 85. Brazil: São Paulo.
- 1871 S Keller (165). Rec'd 27 Mar 85.
- 1872 S Keller (166). Rec'd 27 Mar 85.
- 1873 S Keller (167). Rec'd 27 Mar 85.
- 1874 S Keller (168). Rec'd 27 Mar 85.
- 1875 S Keller (169). Rec'd 27 Mar 85.
- 2401 [ESALQ 478] SB Alves. *Solenopsis invicta* [Hymenoptera: Formicidae]. Oct 86. Brazil: Mato Grosso.
- 2660 C Gopalakrishnan (31). Adult, [Coleoptera]. Rec'd Nov 88. India.
- 3054 [MAF F1] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: South Island.

Beauveria caledonica Bissett & Widden
[Hyphomycetes]

- 2567 CCFC (DAOM 191855) ← P Widden. Natural heather moors, A1 horizon. Rec'd 17 May 88. Scotland: Banchory, Grampian.

Beauveria velata Samson & Evans
[Hyphomycetes]

- 2998 CBS (607.80) ← HC Evans. Larva, [Lepidoptera]. Rec'd 22 May 90. Ecuador.

Beauveria vermiconia de Hoog & Rao
[Hyphomycetes]

- 2922 CBS (645.74). Volcanic ash soil. 1974. Chile. CULTURE EX TYPE.

Beniowskia sp.
[Hyphomycetes]

- 2751 GW Riethmacher (EB1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 5 Apr 89. Philippines: La Trinidad, Benguet.

Calcarisporium ovalisporum (Petch) de Hoog
[Hyphomycetes]

Isolated as a mycoparasite from *Hirsutella citriformis*. This fungus is not itself pathogenic for insects.

- 1907 MC Rombach (2). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.
- 2035 MC Rombach (Cov-2). *Hirsutella citriformis*. 1985. Solomon Islands.
- 2036 MC Rombach (Cov-5). *Hirsutella citriformis*. 1985. Solomon Islands.

Candida sp.
[Hyphomycetes]

All of these strains grow as yeasts with facultative capacities to attack cockroaches. It remains uncertain whether they can be primary pathogens or depend upon the host to be stressed, wounded, or otherwise compromised.

- 1857 [NRRL Y-12965] JM Verrett. *Periplaneta americana* [Dictyoptera: Blattellidae]. Acc'd 21 Feb 85. USA: laboratory colony, Dillard University, New Orleans, Louisiana.
- 1877 [NRRL Y-12966] TB Clark. *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd 12 Oct 83. USA: laboratory colony, Beltsville, Maryland.
- 1924 H deBarjac (1). *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd Jun 85. laboratory colony.
- 1925 H deBarjac (4). *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd Jun 85. laboratory colony.
- 1926 H deBarjac (5). *Blattella germanica* [Dictyoptera: Blattellidae]. Rec'd Jun 85. laboratory colony.

***Catenaria anguillulae* Sorokin**
[Chytridiomycetes: Blastocladales]

- 2015 [ATCC 58382] BA Jaffee (Ca2). *Xiphinema* sp. [Dorylaimida: Longidoridae]. 18 Jun 84. USA: Adams County, Pennsylvania.

***Cladosporium* sp.**
[Hyphomycetes]

- 3706 LA Lacey (052A). Adult, [Homoptera: Aleyrodidae]. 21 Mar 92. Nepal: Katmandu.

***Cladosporium cladosporioides* (Fresenius) de Vries**
[Hyphomycetes]

- 3085 J Peña. *Eotetranychus* sp. [Acari: Tetranychidae] on *Cassava* sp. 30 Aug 90. USA: Homestead, Florida.
- 3375 [Puerto Rico 04-91] F Gallardo ← G Mejía. Adult, nymphs & pupa, *Thrips palmi* [Thysanoptera: Thripidae] on eggplant, *Solanum melongena*. Jun 91. USA: Río Piedras, Puerto Rico.
- 3463 D Wilson ← T Whitham. Gall, *Pemphigus betae* [Homoptera: Aphididae] on narrowleaf cottonwood, *Populus angustifolia*. Rec'd 5 Nov 91. USA: Arizona. Contains *Verticillium ?lecanii* as mycoparasite.

***Coelomycidium simulii* Debaisieux**
[Chytridiomycetes: Chytridiales]

Cultures are vegetative only. No zoospores have been induced by any medium or treatment used.

- 218 LS Bauer. *Simulium venustum* [Diptera: Simuliidae]. 24 May 78. USA: Otter Pond Creek, Milford, Maine.

***Coemansia* sp.**
[Zygomycetes: Kickxellales]

- 2452 GL Benny (21A). Rec'd 31 Aug 87.

***Conidiobolus* sp.**
[Zygomycetes: Entomophthorales]

These strains include a heterogeneous assortment of fungi isolated as saprobes and as zoopathogens. Some may represent undescribed new species. Identifications of *Conidiobolus* species are made difficult by the relative lack of taxonomic characters and of any modern taxonomic attention.

Caution: Strains derived from mammalian mycoses should be treated as potentially hazardous; observe handling precautions noted for *Conidiobolus coronatus*.

- 92 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 76. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
- 93 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 76. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.
- 94 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 7 Jul 76. USA: west side, 2nd Musquacook Lake, Musquacook, Maine.

- 147 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 77. USA: Carroll, Maine.
- 148 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 77. USA: forest, Maine.
- 211 DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Mar 78. India: insectary, Hyderabad, Andhra Pradesh.
- 391 S Keller (21). [Homoptera: Cercopidae]. Rec'd 18 Oct 79. Switzerland.
- 517 DW Roberts (82380-19). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Aug 80. Malaysia: Bumbong Lima, Icepala Batas, Wellesley Province.
- 522 DW Roberts (82180-7b). *Nilaparvata lugens* [Homoptera: Delphacidae] on leaves. 21 Aug 80. Malaysia.
- 564 RS Soper (8133-1/BPH-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 595 RS Soper (81227-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Feb 81. Indonesia: Bantul District, Yogyakarta, Java.
- 596 RS Soper (81226-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Feb 81. Indonesia: Bantul District, Yogyakarta, Java.
- 604 RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
- 605 RS Soper (8133-1). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 606 RS Soper (8133-1). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 1426 RS Soper (8465-1). [Homoptera: Aphididae] on rose. 6 May 84. Yugoslavia: Plant Protection Institute, Belgrade.
- 1444 M Smith (L05 and 001). Soil/plant detritus. 1984. England: marshy area by pool, U. of Keele, Keele, Staffordshire.
- 1445 M Smith (K13 and 004). Soil/plant detritus. 1984. England: turf behind Keele Hall, U. of Keele, Keele, Staffordshire.
- 1477 [CNPAF 84-04-25-2; CP 167] SM dos Santos. [Orthoptera: Tettigoniidae]. 25 Apr 84. Brazil: CNPAF, Goiânia, Goiás.
- 1485 M Smith (N01 and 141). Soil/plant detritus. 1984. England: grazed pasture behind Keele Hall, U. of Keele, Keele, Staffordshire.
- 1486 M Smith (O08 and 017). Soil/plant detritus. 1984. England: wheat field, U. of Keele, Keele, Staffordshire.

- 1487 M Smith (Q01 and 119). Soil/plant detritus. 1984. England: grazed pasture behind Keele Hall, U. of Keele, Keele, Staffordshire.
- 1488 M Smith (I01 and 020). Soil/plant detritus. 1984. England: grazed pasture behind Keele Hall, U. of Keele, Keele, Staffordshire.
- 1672 GO Poinar ← GM Thomas. *Porcellio* sp. [Isoptera: Oniscoidea]. 5 Jun 84. USA: California.
- 1967 T Burger. *Schizaphis graminum* [Homoptera: Aphididae]. Aug 85. USA: laboratory colony, APHIS-PPQ, Niles, Michigan.
- 2130 IL Sivcev (160/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 2 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2147 MA Naves. *Deois* sp. [Homoptera: Cercopidae]. 4 Mar 86. Brazil: Mato Grosso.
- 2148 MA Naves. *Deois flavopicta* [Homoptera: Cercopidae]. 21 Mar 86. Brazil: Mato Grosso.
- 2193 [CNPAF 86-5-19; CP 203] SM dos Santos. [Hymenoptera]. 19 May 86. Brazil: CNPAF, Goiânia, Goiás.
- 2494 J Eilenberg (KVL 15). [Diptera: Anthomyiidae]. 25 Jul 86. Denmark: Svanholm, Hornsherred.
- 2498 J Eilenberg (KVL 25). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 25 Aug 86. Denmark: Kattinge Vig, Roskilde.
- 2672 J Eilenberg (KVL 49). *Delia radicum* [Diptera: Anthomyiidae]. 2 Aug 88. Denmark: Roskilde.
- 2771 GW Riethmacher (C3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 11 Apr 89. Philippines: La Trinidad, Benguet.
- 2772 GW Riethmacher (C4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 89. Philippines: La Trinidad, Benguet.
- 2815 GW Riethmacher (C5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Apr 89. Philippines: La Trinidad, Benguet.
- 2816 GW Riethmacher (C6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 9 Jun 89. Philippines: La Trinidad, Benguet.
- 2819 SR Sánchez Peña (4-2). *Solenopsis invicta* [Hymenoptera: Formicidae]. 5 Aug 89. USA: College Station, Texas.
- 2924 CDC (B-4742). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.
- 2925 CDC (B-4741). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.
- 2926 CDC (B-4743). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.
- 2927 CDC (B-4744). Nasal granulomata of sheep. Rec'd 13 Dec 89. Australia.
- 2928 [UTMB 3109] L Pasarell. *Homo sapiens*. Rec'd 18 Sep 89. USA: Port Arthur, Texas.
- 3208 GW Riethmacher (C4.1a). *Plutella xylostella* [Lepidoptera: Plutellidae]. 16 Oct 90. Philippines: La Trinidad, Benguet.
- 3383 I Majchrowicz (18). *Aphis fabae* [Homoptera: Aphididae] on bean. 27 Jun 91. USA: Grandpa's garden, Granger, Washington.
- 3384 I Majchrowicz (25-b). *Myzus persicae* [Homoptera: Aphididae] on potato. 11 Jul 91. USA: Orchard Farm, Yakima, Washington.
- 3402 MS Goettel (17) ← G Pohl and D Yu. 30 Sep 91. Canada: Agriculture Canada Research Station, Lethbridge, Alberta.
- 3406 BJ Cochrane ← K Chernov (V). Soil. Rec'd 7 Oct 91. USA: mowed USF grounds by UPD, Tampa, Florida.
- 3407 BJ Cochrane ← K Chernov (VI). Soil. Rec'd 7 Oct 91. USA: mowed USF grounds by UPD, Tampa, Florida.
- 3409 BJ Cochrane ← K Chernov (Ruby Mine). Soil. Rec'd 7 Oct 91. USA: exposed mountainside, Franklin, North Carolina.
- Conidiobolus adiaeretus* Drechsler
[Zygomycetes: Entomophthorales]
- 451 [CBS 136.57; DS King C-23] ATCC (12589) ← C Drechsler. Plant detritus. USA: Maryland. CULTURE EX TYPE.
- Conidiobolus bangalorensis* Srinivasan & Thirumalachar
[Zygomycetes: Entomophthorales]
- 449 [HACC 190; IMI 118284; NRRL 3682] ATCC (16576) ← MC Srinivasan and MJ Thirumalachar. Plant detritus. 1966. India: Bangalore, Karnataka. CULTURE EX TYPE.
- Conidiobolus brefeldianus* Couch
[Zygomycetes: Entomophthorales]
- 452 ATCC (28847) ← DS King (C-31) ← CBS (141.39) ← JN Couch. USA: North Carolina. CULTURE EX TYPE.
- Conidiobolus coronatus* (Costantin) Batko
[Zygomycetes: Entomophthorales]
- Major synonyms: *Entomophthora coronata* (Costantin) Kevorkian, *Conidiobolus villosus* Martin.
- Caution:** This species is known to cause human mycoses that are primarily tropical in occurrence and confined to the nasal passages and adjacent superficial areas. Avoid inhalation of conidia and do not handle cultures without gloves if unhealed cuts or abrasions are present. This species has low pathogenicity for mammals and should be relatively safe if handled with good microbiological technique.
- 205 ATCC (28691) ← DS King (75). Plant detritus. Rec'd 9 Mar 78. USA.

- 206 [IPLB 951.72] ATCC (32867) ← F Mariat. *Homo sapiens*. Rec'd 9 Mar 78. Nigeria.
- 274 BE Tucker (171). Soil from roots under *Helosis* sp. [Balanophoraceae]. Costa Rica: 9.783°N lat, 83.999°W long, elev. 1950 ft, Casa Mata.
- 349 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 16 Feb 79. Australia: Cairns, Queensland.
- 405 DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 406 DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 79. Philippines: IRRI greenhouse, Parian, Calamba, Laguna.
- 418 DW Roberts (A). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 419 DW Roberts (B). [Homoptera: Cicadellidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 421 DW Roberts (E). [Homoptera: Cicadellidae]. Nov 79. Philippines: IRRI greenhouse, Parian, Calamba, Laguna.
- 422 DW Roberts (F). [Homoptera: Cicadellidae]. Nov 79. Philippines: IRRI greenhouse, Lecheria, Calamba, Laguna.
- 471 [DAR 30604] J Walker. Casing soil of *Agaricus brunnescens* [Hymenomycetes: Agaricales]. Apr 78. Australia: R.D. 67, nr. Rydalmere, McGrath's Hill, New South Wales.
- 511 DW Roberts (81380-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Aug 80. Philippines: IRRI, Los Baños, Manila.
- 512 DW Roberts (82180-4a). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Malaysia.
- 514 DW Roberts (82180-7c). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Malaysia.
- 520 DW Roberts (82380-20). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 23 Aug 80. Malaysia: cages, Bumbong Lima, Icepala Batas, Wellesley Province.
- 523 DW Roberts (82380-22). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Aug 80. Malaysia: cages, Bumbong Lima, Icepala Batas, Wellesley Province.
- 524 DW Roberts (82180-4c). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Malaysia.
- 525 DW Roberts (82880-11). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: rearing cage, Chainat Rice Exp. Sta., N of Bangkok, Khlong Luang.
- 528 DW Roberts (82980-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: NBRC cages.
- 563 RS Soper (8133-1/BPH-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 565 RS Soper (8133-1/BPH-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 567 RS Soper (81224-2). [Araneida]. 24 Feb 81. Indonesia: Diski Village, Medan District, Sumatera Utara.
- 597 RS Soper (8133-1). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.
- 655 DW Roberts (102381-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Oct 81. PR China: Guanzhou, Kwon Tung.
- 997 J Aoki (Ent. 11) ← M Shimazu. *Nilaparvata lugens* [Homoptera: Delphacidae]. Jul 76. Japan: Chikugo, Fukuoka Prefecture.
- 1147 LI Rivera-Vargas. *Volvariella volvacea* [Agaricales]. 1984. USA: Mayaguez, Puerto Rico.
- 1572 S Keller (490). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.
- 1573 S Keller (491). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.
- 1574 S Keller (493). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.
- 1575 S Keller (494). *Ceutorhynchus napi* [Coleoptera: Curculionidae]. 14 Jun 84. Switzerland.
- 1736 N Wilding (4). *Myzus persicae* [Homoptera: Aphididae] isolate (Wilding #3) passed through *Galleria mellonella* [Lepidoptera: Pyralidae] larva. Feb 69. Lab. manipulation.
- 1737 N Wilding (5). *Myzus persicae* [Homoptera: Aphididae] isolate (Wilding #3) passed through *Galleria mellonella* [Lepidoptera: Pyralidae] larva. Feb 69. Lab. manipulation.
- 1738 [ARSEF 96 (lost)] N Wilding (32) ← C Dedryver. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 3 Sep 84. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.
- 1876 DG Holdom (2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 8 Mar 85. Indonesia: Cikampek, Jawa Barat, Java.
- 2715 J Newton ← M Masri. Male, *Equus caballus*. Mar 89. USA: Baton Rouge, Louisiana.
- 2730 GW Riethmacher (C1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 89. Philippines: La Trinidad, Benguet.
- 2812 M Feng (MD8904). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.
- 2813 M Feng (MD8905). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.
- 2814 M Feng (MD8906). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.

- 3087 M Wheeler ← RP Korf. [Dacrymycetales]. 12 Sep 90. USA: Lloyd/Cornell-Ringwood Nat. Pres., Ithaca, New York.
- 3109 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 25 Sep 90. USA: Hoffman field #4E, Catherine, New York.
- 3222 LS Osborne. *Frankliniella occidentalis* [Thysanoptera: Thripidae]. Rec'd 14 Mar 91. USA: greenhouse, IFAS, Univ. of Florida, Apopka, Florida.
- 3379 K Ostrovska (4) ← PG Lawlor. *Lutzomyia* sp. [Diptera: Psychodidae]. Jul 91. Guatemala: Tical, Petén.
- 3414 K Ostrovska (21) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.
- 3415 K Ostrovska (22) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

Conidiobolus firmipilleus Drechsler
[Zygomycetes: Entomophthorales]

- 2731 GW Riethmacher (C2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 89. Philippines: La Trinidad, Benguet.

Conidiobolus lachnodes Drechsler
[Zygomycetes: Entomophthorales]

- 700 DW Roberts (102381-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Oct 81. PR China: Guanzhou, Kwon Tung.

Conidiobolus lamprauges Drechsler
[Zygomycetes: Entomophthorales]

- 2338 CC Brown. 15 yr. old Arabian m, *Equus caballus*. Dec 86. USA: Baton Rouge, Louisiana.

Conidiobolus nr. *coronatus* (Costantin) Batko
[Zygomycetes: Entomophthorales]

These strains produce secondary microconidia; their morphologies match the description of *C. coronatus* in every way except that no villose conidia have been observed. Positive identification as *C. coronatus* requires observation of villose conidia.

Caution: All precautions about handling *C. coronatus* should be observed with these strains.

- 598 RS Soper (8135). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Mar 81. Indonesia: greenhouse, Bogor, Jawa Barat, Java.
- 599 RS Soper (81227-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Feb 81. Indonesia: Ngaglik Village, Sleman District, Yogyakarta, Java.
- 600 RS Soper (81227-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 27 Feb 81. Indonesia: Pendo Wo Har Djo, Sleman District, Yogyakarta, Java.
- 602 RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.

- 1742 DW Roberts (26102a) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.
- 1743 DW Roberts (26104) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.
- 1884 [CP 173] DW Roberts ← J Brunet. *Mocis latipes* [Lepidoptera: Noctuidae]. 31 Jan 85. Brazil: CNPAF, Goiânia, Goiás.

Conidiobolus obscurus (Petch) Hall & Dunn
[Zygomycetes: Entomophthorales]
Major synonym: *Entomophthora thaxteriana*

- 67 [IPLB 602] G Remaudière. *Myzus ascalonicus* [Homoptera: Aphididae]. 13 May 75. France.
- 74 RG Kenneth (3043) ← ATCC (24418) and CBS (182.60) ← I Hall. *Therioaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. 28 Dec 75. Israel: Rehovot, Central District. CULTURE EX TYPE.
- 97 [CSIRO EM529] N Wilding (6) ← C Dedryver. *Metopolophium dirhodum* [Homoptera: Aphididae]. France: nr. Rennes, Le Rheu, Ille-et-Vilaine.
- 121 [IPLB 20] JP Latgé and G Remaudière. *Uroleucon* sp. [Homoptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.
- 122 [IPLB 21] JP Latgé and G Remaudière. *Uroleucon* sp. [Homoptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.
- 124 [IPLB 54] JP Latgé and G Remaudière. *Aphis* sp. [Homoptera: Aphididae] on *Cornus* sp. [Cornaceae]. 26 Aug 76. Canada: Saint-Gédéon, Québec.
- 125 [IPLB 66] JP Latgé and G Remaudière. *Rhopalosiphum padi* [Homoptera: Aphididae] on *Prunus pennsylvanicus* [Rosaceae]. 28 Aug 76. Canada: Mt. Tremblant Provincial Park, Québec.
- 129 N Wilding (10). *Myzus persicae* [Homoptera: Aphididae] on potato. 11 Aug 76. USA: Rogers Farm, Stillwater, Maine.
- 133 [ARSEF 355; CSIRO EM543; IPLB 542] G Remaudière ← JP Latgé. *Aphis armata* [Homoptera: Aphididae] on *Digitalis purpurea*. 26 Jul 74. France: Le Roskopf, Moselle.
- 174 FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae] on potato. 7 Jul 77. USA: Rogers Farm, Stillwater, Maine.
- 175 [CSIRO EM558] FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae] on potato. 7 Jul 77. USA: Rogers Farm, Stillwater, Maine.
- 182 FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 10 Aug 77. USA: Maine.
- 243 I Majchrowicz. [Homoptera: ?Aphididae]. Rec'd 6 Sep 78. Poland: Szczecin.

- 354 [ARSEF 824; CSIRO EM535] RJ Milner. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. May 78. Australia: Glen Innes, New South Wales.
- 355 [ARSEF 133; IPLB 542] CSIRO (EM543) ← JP Latgé. *Aphis armata* [Homoptera: Aphididae] on *Digitalis purpurea*. 26 Jul 74. France: Le Rosskopf, Moselle.
- 434 [FPMI 667] JP Latgé ← IPLB (722) or (542 (=ARSEFs 133 & 355)). [Homoptera: Aphididae]. Rec'd 7 Mar 80. France.
- 824 [ARSEF 354; CSIRO EM535] RJ Milner. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. May 78. Australia: Glen Innes, New South Wales.
- 832 CSIRO (EM566) ← PJ Cameron. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 25 May 79. Lab. manipulation.
- 834 CSIRO (EM591) ← D Crawford. *Acyrtosiphon pisum* [Homoptera: Aphididae] on lucerne. 25 Jun 80. Australia: Riverina Agricultural College, Wagga Wagga, New South Wales.
- 839 CSIRO (EM629) ← G Lutton. *Acyrtosiphon kondoi* [Homoptera: Aphididae] on lucerne "condura". 17 Jun 81. Australia: nr. Cooma, Umerella Station, New South Wales.
- 1131 [J Aoki Ent. 9; ARSEF 995 (deaccessioned)] M Shimazu (F-25). *Rhopalosiphum padi* [Homoptera: Aphididae]. Apr 76. Japan: Chikugo, Fukuoka Prefecture.
- 1146 M Shimazu (F-382). *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 4 Apr 84. Japan: Shizuoka Prefecture.
- 1741 N Wilding (90). *Acyrtosiphon pisum* [Homoptera: Aphididae]. Jan 79. Lab. manipulation.
- 2504 J Eilenberg (KVL 29). *Acyrtosiphon pisum* [Homoptera: Aphididae]. Apr 87. Denmark: Karlebo.
- 3080 SP Wraight. *Rhopalosiphum padi* [Homoptera: Aphididae]. 22 Jun 90. USA: irrigated wheat field, Piedmont Organic Produce Farm, Wellington, Colorado.
- 3088 M Feng (MTRM9001). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 31 Jul 90. USA: Bozeman, Montana.
- 3089 M Feng (MTRM9002). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 31 Jul 90. USA: Bozeman, Montana.
- 3090 M Feng (MTRM9003). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 31 Jul 90. USA: Bozeman, Montana.
- 3091 M Feng (MTRM9004). *Rhopalosiphum maidis* [Homoptera: Aphididae] on late-sown spring grain crop. 7 Aug 90. USA: Bozeman, Montana.
- 3092 M Feng (MTMD9002). *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring grain crop. 17 Aug 90. USA: Bozeman, Montana.
- 3099 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 20 Sep 90. USA: Hoffman field #4B, Catherine, New York.
- 3130 K Hural (GF-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.
- 3131 K Hural (GF-3). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.
- 3132 K Hural (GF-4). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.
- 3133 K Hural (GF-5). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.
- 3134 K Hural (GF-6). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.
- 3135 K Hural (GF-7). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. Oct 90. USA: Game Farm Rd., Ithaca, New York.
- 3137 K Hural (Hoff-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.
- 3138 K Hural (Hoff-3). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.
- 3139 K Hural (Hoff-4). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.
- 3140 K Hural (Hoff-5). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.
- 3141 K Hural (Hoff-6). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.

Conidiobolus osmodes Drechsler
[Zygomycetes: Entomophthorales]

- 79 [FPMI 695] RG Kenneth (3) or (3080) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 76. Israel: Sedé Eliyahu.
- 447 [ARSEF 193 (lost); CBS 155.56; RG Kenneth 3123; DS King M-7] ATCC (12590) ← C Drechsler. Decaying vegetable detritus. 20 Dec 50. USA: Laplace, Louisiana. CULTURE EX TYPE.

Conidiobolus paulus Drechsler
[Zygomycetes: Entomophthorales]

- 450 [CBS 140.57] ATCC (12942) ← C Drechsler. Plant detritus. 18 Nov 54. USA: Park Falls, Wisconsin. CULTURE EX TYPE.

Conidiobolus pseudapiculatus Keller

[Zygomycetes: Entomophthorales]

This species is morphologically similar to *Batkoa apiculata* (q.v.) in the size and shape of its primary conidia and production of stout rhizoids with a discoid holdfast.

- 196 CBS (207.66) ← M Gustafsson.
 1662 [IPLB 698] S Keller (478) ← JP Latgé. Rec'd 16 Oct 84.
 1664 [IPLB 877] S Keller (480) ← JP Latgé. Rec'd 16 Oct 84.
 1665 [IPLB 1027] S Keller (482) ← JP Latgé. Rec'd 16 Oct 84.
 2493 J Eilenberg (KVL 6). *Psila rosae* [Diptera: Psilidae]. 25 May 86. Denmark: Strandholm, Faarevejle.
 2496 J Eilenberg (KVL 11). *Psila rosae* [Diptera: Psilidae]. 2 Jun 86. Denmark: Strandholm, Faarevejle.
 2497 J Eilenberg (KVL 21). *Psila rosae* [Diptera: Psilidae]. 11 Aug 86. Denmark: Strandholm, Faarevejle.
 2502 J Eilenberg (KVL 24). *Psila rosae* [Diptera: Psilidae]. Aug 86. Denmark: Strandholm, Faarevejle.

Conidiobolus pumilus Drechsler

[Zygomycetes: Entomophthorales]

- 453 [CBS 152.56; DS King C-32] ATCC (12584) ← C Drechsler. Plant detritus. 28 Feb 52. USA: Arlington, Virginia. CULTURE EX TYPE.

Conidiobolus rhyosporus Drechsler

[Zygomycetes: Entomophthorales]

- 448 [CBS 157.56] ATCC (12588) ← C Drechsler. Decaying vegetable detritus. USA: Laplace, Louisiana. CULTURE EX TYPE.

Conidiobolus thromboides Drechsler

[Zygomycetes: Entomophthorales]

Major synonyms: *Entomophthora virulenta* Hall & Dunn, *Entomophthora pyriformis* Thoizon, *Entomophthora destruens* Weiser & Batko.

- 2 [ARSEF 3364; CSIRO EM570] FR Holbrook. *Myzus persicae* [Homoptera: Aphididae]. May 72. USA: greenhouse, Aroostook State Farm, Presque Isle, Maine.
 5 RS Soper. Adult, [Diptera: Heliomyzidae]. 31 Jul 72. USA: Aroostook State Farm, Presque Isle, Maine.
 115 [ARSEF 115, 208, 3360, 3361; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] ATCC (14270) ← I Hall. *Therioaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. Rec'd 2 Oct 72. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.
 22 RS Soper ← JE Henry. [Orthoptera: Acrididae]. 1973. USA: Bozeman, Montana.
 29 RS Soper ← I Hall. *Therioaphis maculata* [Homoptera: Aphididae]. USA: California.

- 39 RS Soper. *Myzus persicae* [Homoptera: Aphididae]. 12 Mar 73. USA: State of Maine Potato Field, Homestead, Florida.
 40 [ARSEF 3362; RG Kenneth 3024] *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 1973. USA: Aroostook State Farm, Presque Isle, Maine.
 41 [ARSEF 3359; RG Kenneth 3023] *Myzus persicae* [Homoptera: Aphididae]. Aug 74. USA: Aroostook State Farm, Presque Isle, Maine.
 42 [ARSEF 117 (lost); RG Kenneth 3025] N Wilding (3). *Aphis fabae* [Homoptera: Aphididae]. Jul 73. England: field collection, Woburn, Bedfordshire.
 57 RS Soper. *Myzus persicae* [Homoptera: Aphididae]. 29 Aug 75. USA: Rogers Farm, Stillwater, Maine.
 58 [Homoptera: Aphididae]. 18 May 75. Commonwealth of Independent States.
 59 [Homoptera: Aphididae]. 25 Jul 75. Commonwealth of Independent States.
 63 [CSIRO EM557] *Myzus persicae* [Homoptera: Aphididae]. 27 Jul 75. Commonwealth of Independent States.
 64 27 Jul 75. Commonwealth of Independent States.
 70 [ARSEF 3363; IPLB 4] G Remaudière ← R Krejzova. *Culex pipiens pipiens* [Diptera: Culicidae]. Czechoslovakia.
 73 [CSIRO EM534; FPMI 28] RG Kenneth (3040) ← ATCC (24419) ← DM MacLeod ← G Thoizon. *Rhopalosiphum insertum* [Homoptera: Aphididae]. Rec'd 18 Jan 76. France: Val-de-Marne, La Varenne.
 83 [CSIRO EM551, EM572] RG Kenneth (E.a. 38) or (3086) ← A Uziel. *Aphis gossypii* [Homoptera: Aphididae] on pomegranate. 1976. Israel: Sedé Eliyahu.
 84 [ARSEF 85] I Majchrowicz (14 10.6). Reisolat of ARSEF 22. Rec'd 6 Jul 76. Lab. manipulation.
 85 [ARSEF 84] I Majchrowicz (14 10.6). Reisolat of ARSEF 22. Rec'd 6 Jul 76. Lab. manipulation.
 86 [ARSEF 87] I Majchrowicz (17 16.6). [Diptera]. Sep 74. Poland: Wielkopolski National Park.
 87 [ARSEF 86] I Majchrowicz (17 16.6). [Diptera]. Sep 74. Poland: Wielkopolski National Park.
 99 N Wilding (8) ← EG Voronina. *Myzus persicae* [Homoptera: Aphididae]. 1963. Commonwealth of Independent States: St. Petersburg, Russia.
 100 [CSIRO EM552, EM573] N Wilding (9) ← EG Voronina. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 1963. Commonwealth of Independent States.
 101 [ARSEF 1733] N Wilding (1). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.
 102 [ARSEF 1734, 363; CSIRO EM503] N Wilding (2). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.

- 115 [ARSEF 15, 208, 3360, 3361; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] ATCC (14270) ← I Hall. *Therioaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.
- 120 [IPLB 19] JP Latgé and G Remaudière. *Uroleucon* sp. [Homoptera: Aphididae] on *Solidago* sp. [Asteraceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.
- 194 I Ben-Ze'ev (38). *Aphis gossypii* [Homoptera: Aphididae] on pomegranate tree. Apr 76. Israel: Sedé Eliyahu.
- 208 [ARSEF 115, 15, 3360, 3361; ATCC 14270; CBS 183.60; CSIRO EM510, EM571; RG Kenneth 3022, 3035; NRRL 2780] G Hartmann ← I Hall. *Therioaphis maculata* [Homoptera: Aphididae] on *Medicago sativa*. Rec'd Mar 78. USA: California. CULTURE EX TYPE of *Entomophthora virulenta*.
- 242 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.
- 244 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.
- 245 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.
- 246 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.
- 247 I Majchrowicz. *Aphis fabae* [Homoptera: Aphididae] on sugar beet. Rec'd 6 Sep 78. Poland: Szczecin.
- 248 I Majchrowicz ← EG Voronina. [Homoptera: Aphididae]. 25 Jul 78. Commonwealth of Independent States.
- 249 I Majchrowicz ← EG Voronina. [Homoptera: Aphididae]. 25 Jul 78. Commonwealth of Independent States.
- 250 I Majchrowicz ← EG Voronina. [Homoptera: Aphididae]. 25 Jul 78. Commonwealth of Independent States.
- 363 [ARSEF 102, 1734] CSIRO (EM503) ← N Wilding (2). *Cavariella theobaldi* [Homoptera: Aphididae]. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.
- 630 I Majchrowicz (106). *Aphis fabae* [Homoptera: Aphididae]. 16 Jul 81. Poland: Gumience, Szczecin.
- 631 I Majchrowicz (107). *Aphis fabae* [Homoptera: Aphididae]. 16 Jul 81. Poland: Szczecin.
- 632 I Majchrowicz (110). *Aphis fabae* [Homoptera: Aphididae]. 25 Jul 81. Poland: Gryfino, Szczecin.
- 633 I Majchrowicz (109). *Aphis fabae* [Homoptera: Aphididae]. 23 Jul 81. Poland: Stanpanel.
- 634 I Majchrowicz (111). *Aphis fabae* [Homoptera: Aphididae]. 27 Jul 81. Poland: Szczecin.
- 635 I Majchrowicz (108). *Aphis fabae* [Homoptera: Aphididae]. 18 Jul 81. Poland: Szczecin.
- 649 JS Ferguson. *Myzus persicae* [Homoptera: Aphididae] on potato (*Solanum tuberosum*). 7 Aug 81. USA: Arlington Experimental Farm, Columbia County, Wisconsin.
- 1006 J Aoki (Ent. 15) ← H Tomiyama. [Homoptera: Aphididae]. Nov 76. Japan: Fuchu, Tokyo Prefecture.
- 1733 [ARSEF 101] N Wilding (1). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.
- 1734 [ARSEF 102, 363; CSIRO EM503] N Wilding (2). *Cavariella theobaldi* [Homoptera: Aphididae]. 20 Sep 68. England: laboratory colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.
- 1735 N Wilding (8). *Aphis fabae* [Homoptera: Aphididae]. Jul 73. England: Woburn Farm, Bedfordshire.
- 2828 M Feng (MD8903). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.
- 2829 M Feng (MD8907). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.
- 2830 M Feng (SA8901). *Sitobion avenae* [Homoptera: Aphididae] on spring wheat. 25 Jul 89. USA: Parma, Idaho.
- 2849 M Feng (MD8902). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.
- 2850 M Feng (MD8908). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 21 Jul 89. USA: Parma, Idaho.
- 2914 LL Hotz. *Diuraphis tritici* [Homoptera: Aphididae]. Rec'd 17 Nov 89. USA: mixed field collection from Bozeman and Mocassin, Montana.
- 2955 MS Goettel. *Schizaphis graminum* [Homoptera: Aphididae]. 25 Sep 89. Canada: Writing-on-Stone Prov. Park, Warner County, Alberta.
- 3129 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 28 Sep 90. USA: Hoffman field #6B, Catherine, New York.
- 3136 K Hural (Hoff-1). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Oct 90. USA: Hoffman field, Catherine, New York.
- 3359 [ARSEF 41] Acc'd 31 Jul 91. ARSEF 41 resting spores stored at 4°C on 14 May 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3359.
- 3360 [ARSEF 115] Acc'd 31 Jul 91. ARSEF 115 resting spores stored at 4°C on 23 March 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3360.
- 3361 [ARSEF 15] Acc'd 31 Jul 91. ARSEF 15 resting spores stored at 4°C on 9 July 1975 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3361.

- 3362 [ARSEF 40] Acc'd 31 Jul 91. ARSEF 40 resting spores stored at 4°C on 31 January 1977 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3362.
- 3363 [ARSEF 70] Acc'd 31 Jul 91. ARSEF 70 resting spores stored at 4°C from 25 March – 27 April 1976 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3363.
- 3364 [ARSEF 2] Acc'd 31 Jul 91. ARSEF 2 resting spores stored at 4°C from 16 December – 13 January 1974 were inoculated onto plates on 17 July 1991 and accessioned as ARSEF 3364.

Cordyceps sp.

- 3718 RA LeBrun ← J Hanula (C-4). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 91.

Cordyceps heteropoda Kobayasi
 [Pyrenomycetes: Clavicipitales]

This species has not produced stromata, perithecia, or ascospores in culture. Vegetative hyphae and conidia are all that have been observed with standard culture media and routine physical conditions of incubation in the laboratory and/or incubator.

- 1880 K Chandler and RA Humber. *Cicadetta puer* [Homoptera: Cicadidae]. 22 Feb 85. Australia: nr. Cairns, Queensland.

Cordyceps militaris (Link:Fries) Link
 [Pyrenomycetes: Clavicipitales]

This species has not produced stromata, perithecia, or ascospores in culture. Vegetative hyphae and conidia are all that have been observed with standard culture media and routine physical conditions of incubation in the laboratory and/or incubator.

- 2416 M Shimazu (F-522). [Lepidoptera: Geometridae]. 17 Jun 85. Japan: Mt. Akagi.

Crypticola clavulifera Humber, Frances & Sweeney in Frances, Sweeney & Humber
 [Oomycetes: Lagenidiales]

- 1940 [ARSEF ?2529; ATCC 76239] SP Frances and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae] breeding in the leaf axils of *Taro* sp. 8 Jun 85. Australia: Millaa Millaa, Queensland.

Culicinomyces bisporalis Sigler, Frances & Panter
 [Hyphomycetes]

- 1948 [UAMH 5174] SP Frances (MM1) and AW Sweeney. Larva, *Aedes kochi* [Diptera: Culicidae] breeding in leaf axils. 4 Jun 84. Australia: Millaa Millaa, Queensland.
- 1949 [UAMH 5175] SP Frances (MM2) and AW Sweeney. Larva, *Aedes kochi* [Diptera: Culicidae] breeding in leaf axils. 8 Jun 85. Australia: Millaa Millaa, Queensland.

Culicinomyces clavissporus Couch, Romney & Rao
 [Hyphomycetes]

- 372 [UAMH 4848] JN Couch. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 1979. USA: University Lake, Chapel Hill, North Carolina.
- 582 [UAMH 4849] LS Olive (single spore isolate #1) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.
- 583 [UAMH 4869] LS Olive (single spore isolate #2) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.
- 584 [UAMH 4850] LS Olive (single spore isolate #3) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.
- 585 LS Olive (single spore isolate #4) ← SV Romney. *Anopheles quadrimaculatus* [Diptera: Culicidae]. Rec'd 10 Apr 81. USA: University Lake, Chapel Hill, North Carolina.
- 644 [ARSEF 541 (lost)] AW Sweeney (298A). Larva, *Anopheles amictus hilli* [Diptera: Culicidae]. Rec'd 13 Oct 81. Australia: Sydney, New South Wales.
- 645 AW Sweeney (298B). Larva, *Anopheles amictus hilli* [Diptera: Culicidae]. Rec'd 13 Aug 81. Australia: Sydney, New South Wales.
- 706 [UAMH 4851] AL Knight. Larva, [Diptera: Culicidae]. Rec'd Feb 82. USA: North Carolina.
- 964 [ATCC 52635; CBS 755.83; IMI 280342] UAMH (4618) ← MS Goettel (FI-59). Larva, *Culiseta inornata* [Diptera: Culicidae]. 12 Aug 82. Canada: pond, N of Devon, Alberta.
- 1260 UAMH (4854) ← MS Goettel (25B). Larva, *Culiseta inornata* [Diptera: Culicidae] isolate passed through *Aedes aegypti* [Diptera: Culicidae]. Acc'd 3 May 84. Lab. manipulation.
- 2471 SP Frances (MI2). Larva, *Aedes rupestris* [Diptera: Culicidae]. 8 Dec 81. Australia: Mittagong, New South Wales.
- 2472 SP Frances (MI4). Larva, *Aedes rupestris* [Diptera: Culicidae]. 5 Jan 82. Australia: Mittagong, New South Wales.
- 2473 SP Frances (MI5). Larva, *Aedes rupestris* [Diptera: Culicidae]. 12 May 82. Australia: Mittagong, New South Wales.
- 2474 SP Frances (MI7). Larva, *Aedes rupestris* [Diptera: Culicidae]. 19 May 82. Australia: Mittagong, New South Wales.
- 2475 SP Frances (MI11). Larva, *Aedes rupestris* [Diptera: Culicidae]. 9 Jun 82. Australia: Mittagong, New South Wales.
- 2476 SP Frances (MI17). Larva, *Aedes rupestris* [Diptera: Culicidae]. 18 Aug 82. Australia: Mittagong, New South Wales.

- 2477 SP Frances (MI19). Larva, *Aedes rupestris* [Diptera: Culicidae]. 6 Apr 83. Australia: Mittagong, New South Wales.
- 2478 SP Frances (MI21). Larva, *Dasyhelea* sp. [Diptera: Ceratopogonidae]. 27 Apr 83. Australia: Mittagong, New South Wales.
- 2479 SP Frances (VI1). Larva, *Culisetia inconspicua* [Diptera: Culicidae]. 6 Dec 84. Australia: Mallacoota, Victoria.
- 2480 SP Frances (QI1) ← DW Roberts and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Aug 85. Australia: Millaa Millaa, Queensland.
- 2481 SP Frances (QI2). Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 30 Oct 85. Australia: Millaa Millaa, Queensland.
- 2482 UAMH (4854) ← MS Goettel (25B). *Culiseta inornata* [Diptera: Culicidae] isolate passed through *Aedes aegypti* [Diptera: Culicidae]. Acc'd 19 Nov 87. Lab. manipulation.
- 2526 SP Frances (MI14). Rec'd 26 Oct 87.
- 2527 SP Frances (MI16). Rec'd 26 Oct 87.
- 2622 MS Goettel ← SP Frances (MI26) and AW Sweeney. [Diptera: Culicidae]. Acc'd 20 Oct 88. Australia.

Drechmeria coniospora (Drechsler) Gams & Jansson
[Hyphomycetes]

- 2468 [CBS 615.82] BM Zuckerman ← HB Jansson. Phylum Nemata, Class Secernemtia. Rec'd 12 Nov 87. Sweden.
- 3346 P Timper ← BA Jaffee (M-19) ← R Mankau. Phylum Nemata, Class Secernemtia. Rec'd 19 Jun 91. USA: California.
- 3354 P Timper (C1). Phylum Nemata, Class Secernemtia. Mar 91. USA: Minns Garden, Cornell University, Ithaca, New York.

Engyodontium aranearum (Cavara) Gams, Hoog, Samson & Evans
[Hyphomycetes]

- 2929 [MU 248] MA Vincent (2609). *Pholcus phalangoides* [Araneida: Pholcidae]. 6 Sep 87. USA: moist basement, 6888 Burch Rd., Richland Twp. sect. 22, Darke County, Ohio.
- 2935 [MU 302] MA Vincent (3201). *Pholcus phalangoides* [Araneida: Pholcidae]. Jul 89. USA: moist basement, 6888 Burch Rd., Richland Twp. sect. 22, Darke County, Ohio.

***Entomophaga* sp.**
[Zygomycetes: Entomophthorales]

- 1126 DW Roberts (020184-2A). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 2 Jan 84. Philippines: IRRRI, Los Baños, Manila.

- 1230 [CNPAF 84-04-09-1B; CP 130] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 9 Apr 84. Brazil: CNPAF, Goiânia, Goiás.
- 1881 DW Roberts (110485-2) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae] on cacao. 11 Apr 85. Solomon Islands: nr. Honiara, Guadalcanal.
- 2083 DG Holdom. *Aiolopus thalassinus tamulus* [Orthoptera: Acrididae: Oedipodinae]. 30 Dec 85. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java. Provided as vegetative protoplasts in a liquid tissue culture medium.
- 2535 J Eilenberg (KVL 5). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 25 Aug 86. Denmark: Kattinge Vig, Roskilde.
- 2671 J Eilenberg (KVL 48). *Ptychoptera contaminata* [Diptera: Ptychopteridae]. 9 Aug 88. Denmark: Kattinge Vig, Roskilde.

Entomophaga asiatica Humber, Soper & Shimazu in Humber (sp. nov., unpublished)
[Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 1393 RS Soper (84627-6). [Orthoptera: Acrididae]. 27 Jun 84. Japan: nr. Tsuruga, Fukui Prefecture.
- 1659 M Shimazu (F-457) and RS Soper. *Parapodisma* sp. [Orthoptera: Acrididae]. Jun 84. Japan: Fukui Prefecture.

Entomophaga aulicae (Reichardt in Bail) Humber
[Zygomycetes: Entomophthorales]

Strains will grow as wall-less protoplasts in liquid tissue culture media or as walled hyphae on solid culture media.

- 51 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: 12.4 mi from Rt. 11/159 in Patten, Shin Pond, Maine.
- 164 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 77. USA: forest-lower, nr. Carroll, Maine.
- 165 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 77. USA: Sherman, Maine.
- 166 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 77. USA: forest-lower, nr. Carroll, Maine.
- 167 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 77. USA: forest-upper, nr. Carroll, Maine.
- 168 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 14 Jul 77. USA: forest-upper, nr. Carroll, Maine.
- 172 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. Jul 77. USA: forest-lower, Shin Pond, Maine.

- 198 [ARSEF ?998; FPMI 707] RG Kenneth (3136) ← J Aoki. *Aedia leucomelas* [Lepidoptera: Noctuidae] on *Ipomea batatas* (sweet potato). 29 Oct 76. Japan: Fuchu, Tokyo Prefecture.
- 251 JG Hamm. ?*Heliothis* sp. [Lepidoptera: Noctuidae] on sorghum. Rec'd Sep 78. USA: GA Coastal Plain Experiment Station, Tifton, Georgia.
- 393 [FPMI 770] S Keller (114). *Tipula* sp. [Diptera: Tipulidae]. Rec'd 27 May 80. Switzerland.
- 998 [ARSEF ?198] J Aoki (Ent. 14) ← A Ohkawa. *Aedia leucomelas* [Lepidoptera: Noctuidae]. Oct 76. Japan: Fuchu, Tokyo Prefecture.
- 1140 [ARSEF 1656] M Shimazu (F-339). [Lepidoptera]. 8 Apr 82. Japan: Ibaraki Prefecture.
- 1655 [ARSEF 1142 (lost); CSIRO EM693] M Shimazu (F-343). *Dendrolimus spectabilis* [Lepidoptera: Lasiocampidae]. Rec'd Oct 84. Japan: Ibaraki Prefecture.
- 1656 [ARSEF 1140] M Shimazu (F-339). [Lepidoptera]. Rec'd Oct 84. Japan: Ibaraki Prefecture.
- 1657 [CSIRO EM690] M Shimazu (F-327). *Mamestra brassicae* [Lepidoptera: Noctuidae]. Acc'd 19 Oct 84. Japan: Ibaraki Prefecture.
- 1751 J Mitsuhashi (Emb-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 29 Oct 84. Japan: Ibaraki Prefecture.
- 1990 FPMI (491). *Lambdina fiscellaria lugubrosa* [Lepidoptera: Geometridae]. 16 Aug 72. Canada: Coquitlam, British Columbia.
- 1991 FPMI (458). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 8 Sep 70. Canada: Boots Brook, Newfoundland.
- 1992 FPMI (889). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 5 Jul 85. Canada: Black Sturgeon, Ontario.
- 1993 FPMI (771). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 25 Jun 84. Canada: Black Sturgeon, Ontario.
- 1994 FPMI (776). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 84. Canada: Black Sturgeon, Ontario.
- 1995 FPMI (777). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 22 Jun 84. Canada: Black Sturgeon, Ontario.
- 1997 FPMI (894). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 29 Jul 85. Canada: Black Sturgeon, Ontario.
- 1998 FPMI (877). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 11 Sep 79. Canada: Thessalon, Ontario.
- 1999 FPMI (576). *Pseudaletia* sp. [Lepidoptera: Noctuidae]. 18 Jul 76. Canada: Sault Ste. Marie, Ontario.
- 2000 FPMI (513). *Enypia griseata* [Lepidoptera: Geometridae]. 1975. Canada: British Columbia.
- 2362 M Shimazu (F-554-4). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.
- 2363 M Shimazu (F-553-3). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.
- 2365 M Shimazu (F-553-1). *Autographa gamma* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.
- 2366 M Shimazu (F-555). *Colias erate poliographus* [Lepidoptera: Pieridae]. 26 Sep 86. Japan: Hokkaido Prefecture.
- 2367 M Shimazu (F-554-3). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.
- 2368 M Shimazu (F-554-2). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.
- 2369 M Shimazu (F-554-1). *Mamestra brassicae* [Lepidoptera: Noctuidae]. 26 Sep 86. Japan: Hokkaido Prefecture.
- 2372 M Shimazu (F-531). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 14 May 86. Japan: Chiyoda-mura, Ibaraki Prefecture.
- 2373 M Shimazu (F-530-2). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 86. Japan: Sakura-mura, Chiba Prefecture.
- 2374 M Shimazu (F-530-1). *Spilosoma niveum* [Lepidoptera: Arctiidae]. 6 May 86. Japan: Sakura-mura, Chiba Prefecture.
- 2843 JC Silver ← A Sands. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. Aug 89. USA: Wilmington, Vermont.
- 2896 FPMI (521). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 13 Jul 73. Canada: Newfoundland.
- 2897 FPMI (626). *Dryocampa rubicunda* [Lepidoptera: Saturniidae]. 1973. Canada: Ontario.
- 2898 FPMI (646). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 27 Jul 78. Canada: Newfoundland.
- 2899 FPMI (717). *Rheumaptera hastata* [Lepidoptera: Geometridae]. 16 Aug 82. Canada: Gargantua, Ontario.
- 2900 FPMI (893). *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 29 Jul 83. Canada: Gander, Newfoundland.
- 2901 FPMI (934). *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 2 Jul 86. Canada: Black Sturgeon, Ontario.
- 2902 FPMI (597). *Heterocampa* sp. [Lepidoptera: Notodontidae]. 2 Aug 76. Canada: St. Joseph's Island, Ontario.
- 2903 FPMI (598). *Ellida caniplaga* [Lepidoptera: Notodontidae]. 10 Aug 76. Canada: St. Joseph's Island, Ontario.
- 2904 FPMI (600). *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 22 Jul 76. Canada: Hilton Beach, Ontario.

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- 2905 FPMI (602). *Heterocampa biundata* [Lepidoptera: Notodontidae]. 14 Aug 76. Canada: St. Joseph's Island, Ontario.
- 3016 MH Griggs. Larva, [Lepidoptera: Noctuidae]. 9 Jul 90. USA: Game Farm Rd., Ithaca, New York.
- 3039 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 90. USA: Stamford, New York.
- 3212 AE Hajek. *Heterocampa guttivitta* [Lepidoptera: Notodontidae]. 3 Aug 90. USA: Stamford, New York. Resting spores from ARSEF 3039.
- 3602 AE Hajek. *Malacosoma disstria* [Lepidoptera: Lasiocampidae]. 10 Jun 91. USA: McGowan Woods, Ithaca, New York. Resting spores.

Entomophaga australiensis Humber (sp. nov., unpublished) [Zygomycetes: Entomophthorales]

- 328 [FPMI 767] RS Soper (P-38). *Cicadella* sp. [Homoptera: Cicadellidae] on rice. Feb 79. Australia: Arriga, Queensland.
- 331 [ARSEF 332 (lost)] RS Soper ← K Chandler. *Cicadetta puer* [Homoptera: Cicadidae] on sugar cane. 14 Feb 79. Australia: Cairns, Queensland.
- 365 RS Soper. *Cicadetta puer* [Homoptera: Cicadidae]. 13 Feb 79. Australia: Cairns, Queensland.
- 581 RS Soper (81223-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Feb 81. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatra.
- 743 [CNPAF 82-3-10-04; CP 33] RS Soper. [Homoptera: Cicadellidae]. 10 Mar 82. Brazil: CNPAF, Goiânia, Goiás.
- 791 [CNPAF 82-5-7-3D-1; CP 44] RA Daoust and DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 7 May 82. Brazil: 4 km from Goianinha, Rio Grande do Norte.
- 1888 RS Soper. Reisolate of ARSEF 743. 10 May 82. Brazil: CNPAF, Goiânia, Goiás.
- 1920 P Taylor. Reisolate of ARSEF 331 passed through *Sogatodes oryzicola* [Homoptera: Delphacidae]. Jul 85. Lab. manipulation.

Entomophaga calopteni (Bessey) Humber [Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 383 RA Humber ← DM MacLeod. *Melanoplus flavidus* [Orthoptera: Acrididae]. 3 Aug 79. USA: Sheridan, Wyoming.
- 390 RA Humber ← RS Soper. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 3 Aug 79. USA: Sheridan, Wyoming.
- 408 RA Humber. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 2 Aug 79. USA: Broadus, Montana.

- 497 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 27 Jun 79. USA: Salt Water Canyon, Eagar, Arizona.
- 498 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 5 Jul 80. USA: White River, South Dakota.
- 500 RA Humber and BJ Martinell. *Melanoplus bivittatus* [Orthoptera: Acrididae] resting spore isolate passed through *Locusta migratoria* [Orthoptera: Acrididae]. Summer 80. Lab. manipulation.
- 623 BJ Martinell (004B(M. cun haem)). *Melanoplus cuneatus* [Orthoptera: Acrididae]. 18 Jun 81. USA: Southwater Canyon, Arizona.
- 625 BJ Martinell (014B). *Melanoplus packardii* [Orthoptera: Acrididae]. 1 Jul 81. USA: alfalfa field, Eagar, Arizona.
- 626 BJ Martinell (004A(M. cun femur)). *Melanoplus cuneatus* [Orthoptera: Acrididae]. 18 Jun 81. USA: Southwater Canyon, Arizona.
- 646 BJ Martinell. *Melanoplus cuneatus* [Orthoptera: Acrididae]. 1 Jul 81. USA: Eagar, Arizona.
- 766 BJ Martinell (36) and RS Soper. *Melanoplus bivittatus* [Orthoptera: Acrididae]. 27 Jul 82. USA: Eagar, Arizona.
- 2522 DG Holdom ← WA Ramoska. *Melanoplus differentialis* [Orthoptera: Acrididae]. Acc'd 8 Dec 87. USA: Kansas.

Entomophaga conglomerata (Sorokin) Keller [Zygomycetes: Entomophthorales]

- 2273 EL Cuebas-Incle (II). Adult, [Diptera: Chironomidae]. 25 Sep 86. USA: Michigan Hollow, Danby, New York.

Entomophaga macleodii Humber (sp. nov., unpublished) [Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 375 [FPMI 647] DM MacLeod. *Dissosteira carolina* [Orthoptera: Acrididae]. 20 Apr 89. Canada: nr. river bank, Iron Bridge, Ontario.
- 376 [FPMI 625] DM MacLeod. *Dissosteira carolina* [Orthoptera: Acrididae]. 21 Jul 77. Canada: nr. river bank, Iron Bridge, Ontario.
- 382 RS Soper. *Dissosteira carolina* [Orthoptera: Acrididae]. Aug 79. USA: 12 Redwood Lane, Ithaca, New York.
- 496 RA Humber and BJ Martinell. *Camnula pellucida* [Orthoptera: Acrididae]. 28 Jun 80. USA: Rodeo fairground, Alpine, Arizona.
- 499 RA Humber, BJ Martinell and RS Soper. *Dissosteira carolina* [Orthoptera: Acrididae]. 17 Jul 80. USA: Ithaca, New York.

- 618 BJ Martinell (003(Rodeo)). *Camnula pellucida* [Orthoptera: Acrididae]. 16 Jun 81. USA: Rodeo fairground, Alpine, Arizona.
- 619 BJ Martinell (001(FSA)). *Camnula pellucida* [Orthoptera: Acrididae]. 16 Jun 81. USA: Forest Service plot A, Alpine, Arizona.
- 620 BJ Martinell (006(Judd B proto)). *Camnula pellucida* [Orthoptera: Acrididae]. 27 Jun 81. USA: Judd Dam plot B, nr. Alpine, Arizona.
- 621 BJ Martinell (010(AlpineA)). *Camnula pellucida* [Orthoptera: Acrididae]. 29 Jun 81. USA: Alpine plot A, Alpine, Arizona.
- 624 BJ Martinell (011(JuddA)). *Camnula pellucida* [Orthoptera: Acrididae]. 29 Jun 81. USA: Judd Dam plot A, nr. Alpine, Arizona.
- 628 BJ Martinell (008). *Camnula pellucida* [Orthoptera: Acrididae]. 27 Jun 81. USA: Alpine plot B, Alpine, Arizona.
- 629 BJ Martinell (002). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jun 81. USA: Forest Service plot B, Alpine, Arizona.
- 765 BJ Martinell (41). *Camnula pellucida* [Orthoptera: Acrididae]. 28 Jul 82. USA: Judd Dam, nr. Alpine, Arizona.
- 767 BJ Martinell (1). *Camnula pellucida* [Orthoptera: Acrididae]. 18 Jul 82. USA: Jepson's Ranch, Alpine, Arizona.
- 768 BJ Martinell (3). *Camnula pellucida* [Orthoptera: Acrididae]. 18 Jul 82. USA: Rodeo fairground, Alpine, Arizona.
- 769 BJ Martinell (13). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC Flat, nr. Alpine, Arizona.
- 770 BJ Martinell (20). *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 23 Jul 82. Lab. manipulation.
- 771 BJ Martinell (21). *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 23 Jul 82. Lab. manipulation.
- 772 BJ Martinell (12). *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus packardii* [Orthoptera: Acrididae]. 18 Jul 82. Lab. manipulation.
- 773 BJ Martinell (10). *Camnula pellucida* [Orthoptera: Acrididae]. 18 Jul 82. USA: Rodeo fairground, Alpine, Arizona.
- 774 BJ Martinell (25). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC Flat, nr. Alpine, Arizona.
- 775 BJ Martinell (11) and RS Soper. *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus packardii* [Orthoptera: Acrididae]. 18 Jul 82. Lab. manipulation.
- 776 BJ Martinell (8) and RS Soper. *Camnula pellucida* [Orthoptera: Acrididae] isolate passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 18 Jul 82. Lab. manipulation.
- 777 BJ Martinell (28). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: Judd Dam, nr. Alpine, Arizona.
- 778 BJ Martinell (23). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC Flat, nr. Alpine, Arizona.
- 779 BJ Martinell (22). *Camnula pellucida* [Orthoptera: Acrididae]. 23 Jul 82. USA: ELC flats, nr. Alpine, Arizona.
- 3025 ME Ramos. *Camnula pellucida* [Orthoptera: Acrididae]. 16 Jul 90. USA: Watford City, North Dakota.
- 3077 L Postie (Reisolate 1). Reisolate of ARSEF 768 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Apr 90. Lab. manipulation.
- 3078 L Postie (Reisolate 2). Reisolate of ARSEF 768 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Apr 90. Lab. manipulation.
- 3079 L Postie (Reisolate 3). Reisolate of ARSEF 3078 passed through *Camnula pellucida* [Orthoptera: Acrididae]. 6 Aug 90. Lab. manipulation.
- Entomophaga maimaiga* Humber, Shimazu & Soper in Soper, Shimazu, Humber, Ramos & Hajek [Zygomycetes: Entomophthorales]
- Strains will grow as wall-less protoplasts in liquid tissue culture media or as walled hyphae on solid culture media.
- 1390 RS Soper (84626-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.
- 1391 [FPMI 963] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.
- 1392 [FPMI 964] RS Soper (84626-7-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.
- 1400 [FPMI 952] RS Soper (84626-7). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Torigoe, Ishikawa Prefecture.
- 1658 M Shimazu (F-446). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 26 Jun 84. Japan: Ishikawa Prefecture.
- 1746 M Shimazu. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 28 Nov 84. Lab. manipulation.
- 2370 M Shimazu (F-541-2). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 86. Japan: Sakura-mura, Chiba Prefecture.
- 2371 M Shimazu (F-541-1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jul 86. Japan: Sakura-mura, Chiba Prefecture.
- 2661 AE Hajek. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 23 Oct 88. Lab. manipulation.

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- 2775 AE Hajek (CTIV-3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 89. USA: Wilton, Connecticut.
- 2779 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 25 Jun 89. USA: Northampton, Massachusetts.
- 2780 AE Hajek. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jul 89. USA: North Conway, New Hampshire.
- 3052 AE Hajek (L1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 90. USA: Ward Pound Ridge Reservation, Westchester County, New York.
- 3053 AE Hajek (L3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 May 90. USA: Ward Pound Ridge Reservation, Westchester County, New York.
- 3110 AE Hajek. Reisolate of ARSEF 1400 passed through *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Feb 89. Lab. manipulation.

***Entomophaga prazibuli* Humber, Milner, & Soper (sp. nov., unpublished)**
[Zygomycetes: Entomophthorales]
Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 840 RS Soper. *Prazibulus* sp. [Orthoptera: Acrididae]. 1983. Australia: Wanwibinda, New South Wales.
- 2721 ME Ramos. Reisolate of ARSEF 840 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Spring 89. Lab. manipulation.
- 2963 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
- 2964 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
- 2965 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
- 2966 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 7 Mar 90. Lab. manipulation.
- 2967 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.
- 2968 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.

- 2969 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.
- 2970 ME Ramos. *Prazibulus* sp. [Orthoptera: Acrididae] conidial isolate passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. 14 Mar 90. Lab. manipulation.
- 3058 ME Ramos. Reisolate of ARSEF 2964 passed through *Camnula pellucida* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
- 3059 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
- 3060 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
- 3061 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
- 3067 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus differentialis* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
- 3068 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus infantilis* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
- 3069 ME Ramos. Reisolate of ARSEF 2964 passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. 10 Aug 90. Lab. manipulation.
- 3356 ME Ramos (Cape). Reisolate of ARSEF 3059 passed through *Camnula pellucida* [Orthoptera: Acrididae]. Rec'd 10 Jul 91. Lab. manipulation.
- 3357 ME Ramos (Mesa). Reisolate of ARSEF 3059 passed through *Melanoplus sanguinipes* [Orthoptera: Acrididae]. Rec'd 10 Jul 91. Lab. manipulation.
- 3358 ME Ramos (Mebi). Reisolate of ARSEF 3059 passed through *Melanoplus bivittatus* [Orthoptera: Acrididae]. Rec'd 10 Jul 91. Lab. manipulation.

***Entomophaga tabanivora* (Anderson & Magnarelli)**
Humber
[Zygomycetes: Entomophthorales]

- 627 [FPMI 769] BA Mullens. Female adult, *Atylotus thoracis* [Diptera: Tabanidae]. 16 Jul 81. USA: Landers Corners Bog, Cortland County, New York.

***Entomophthora* sp.**
[Zygomycetes: Entomophthorales]

- 999 J Aoki (Ent. 45) ← T Kobayashi. [Homoptera: Aphididae]. Jun 81. Japan: Fuchu, Tokyo Prefecture.

Entomophthora chromaphidis Cornu

[Zygomycetes: Entomophthorales]

This taxon has been segregated from *Entomophthora planchoniana* Cornu (see Humber & Feng, 1991, Mycotaxon 51:497-504). Strains should be incubated at temperatures $\leq 20^{\circ}\text{C}$.

- 1860 DG Holdom (UQE-2-2). *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Jun 81. Australia: Lockyer Valley, Queensland.
- 1862 DG Holdom (UQE-15). *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Jan 83. Australia: Lockyer Valley, Queensland.
- 1863 DG Holdom (UQE-21). *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Jan 83. Australia: Lockyer Valley, Queensland.

Entomophthora culicis (Braun) Fresenius

[Zygomycetes: Entomophthorales]

- 387 S Keller (55). [Diptera: Nematocera]. Rec'd 3 Oct 79. Switzerland: Zürich.

Entomophthora muscae (Cohn) Fresenius

[Zygomycetes: Entomophthorales]

This taxon is a partially resolved species complex (see Keller, 1984, Mitt. Schweiz. Entomol. Ges. 57: 131-132). Most strains are provided only as vegetative protoplasts in liquid tissue culture medium.

- 392 [ARSEF 466 (lost)] S Keller (39). [Diptera]. Rec'd 18 Oct 79. Switzerland.
- 454 RA Humber \leftarrow JP Kramer. *Musca domestica* [Diptera: Muscidae]. Mar 80. USA: laboratory colony, Ithaca, New York.
- 556 RA Humber. *Musca domestica* [Diptera: Muscidae]. 11 Mar 81. USA: JP Kramer's laboratory colony, Cornell University, Ithaca, New York.
- 557 BJ Martinell. *Musca domestica* [Diptera: Muscidae]. 10 Mar 81. USA: Boyce Thompson Institute, Ithaca, New York.
- 651 BJ Martinell \leftarrow DE McCabe. *Pollenia rudis* [Diptera: Calliphoridae]. 5 Nov 81. USA: Keuka Park, New York.
- 707 RA Humber. *Delia platura* [Diptera: Anthomyiidae]. 20 Feb 82. England: N Wilding's greenhouse colony, Rothamsted Experimental Station, Harpenden, Hertfordshire.
- 803 JD Vandenberg. *Musca domestica* [Diptera: Muscidae]. USA: 119 Middaugh Rd., Brooktondale, New York.
- 826 DC Steinkraus. [Diptera: Syrphidae]. 1982. USA: Ithaca, New York.
- 2014 RA Humber. *Musca domestica* [Diptera: Muscidae]. 10 Mar 81. USA: JP Kramer's laboratory colony, Cornell University, Ithaca, New York.
- 2087 TJ Poprawski (0195). Adult, [Diptera: Anthomyiidae] in rapeseed field. Acc'd 19 Feb 86. France: Béhoust, Yvelines.

- 2088 TJ Poprawski (0196). Adult, [Diptera: Anthomyiidae] in rapeseed field. Acc'd 19 Feb 86. France: Béhoust, Yvelines.
- 2089 TJ Poprawski (0197). Adult, *Delia* sp. [Diptera: Anthomyiidae] in sunflower field. Acc'd 19 Feb 86. France: Béhoust, Yvelines.
- 2172 BA Mullens. *Musca domestica* [Diptera: Muscidae]. Acc'd 30 May 86. USA: Riverside, California.
- 2263 TJ Poprawski (8617). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 16 Jun 86. France: Béhoust, Yvelines.
- 2264 TJ Poprawski (8619). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 16 Jun 86. France: Béhoust, Yvelines.
- 2265 TJ Poprawski (8622). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 19 Jun 86. France: Béhoust, Yvelines.
- 2266 TJ Poprawski (8624). Adult, *Delia* sp. [Diptera: Anthomyiidae] on rapeseed. 19 Jun 86. France: Béhoust, Yvelines.
- 2317 TJ Poprawski (8640). Adult, *Delia* sp. [Diptera: Anthomyiidae] on sugar beet. 14 Oct 86. France: Béhoust, Yvelines.
- 2540 J Eilenberg (KVL 1). *Psila rosae* [Diptera: Psilidae]. Aug 84. Denmark: Strandholm, Faarevejle.
- 2541 J Eilenberg (KVL 2). *Psila rosae* [Diptera: Psilidae]. Sep 85. Denmark: Strandholm, Faarevejle.
- 2542 J Eilenberg (KVL 3) \leftarrow U Olesen. *Musca domestica* [Diptera: Muscidae]. Sep 86. Denmark: Filskov, Ribe.
- 2543 J Eilenberg (KVL 8) \leftarrow U Olesen. *Musca domestica* [Diptera: Muscidae]. Sep 86. Denmark: Storkedal.
- 2665 J Eilenberg (KVL 46). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 88. Denmark: Roskilde.
- 2668 J Eilenberg (KVL 16). *Delia radicum* [Diptera: Anthomyiidae]. 25 Jul 86. Denmark: Svanholm, Hornsherred.
- 2670 J Eilenberg (KVL 45). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 88. Denmark: Roskilde.
- 2673 J Eilenberg (KVL 50). [Diptera: Syrphidae]. 2 Aug 88. Denmark: Roskilde.
- 2674 J Eilenberg (KVL 51). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 88. Denmark: Roskilde.
- 2675 J Eilenberg (KVL 44). *Delia radicum* [Diptera: Anthomyiidae]. 14 Jun 88. Denmark: Roskilde.
- 2678 J Eilenberg (KVL 17). [Diptera: Anthomyiidae]. 31 Jul 86. Denmark: Holmegaards Mose.
- 3074 RI Carruthers and SB Krasnoff. Adult, *Delia antiqua* [Diptera: Anthomyiidae]. 9 Oct 90. USA: Prattsburg, New York.

Entomophthora schizophorae Keller & Wilding in Keller

[Zygomycetes: Entomophthorales]

- 2667 J Eilenberg (KVL 13). *Psila rosae* [Diptera: Psilidae]. 23 Jun 86. Denmark: Strandholm, Faarevejle.

***Erynia* sp.**

[Zygomycetes: Entomophthorales]

Strains included here were not sufficiently identifiable to the species and have not been reidentified since publication of the entomophthoralean taxonomy used here (see Humber, 1989, Mycotaxon 34:441-460). In this classification these strains would be reassigned to *Pandora* Humber, *Furia* (Batko) Humber, *Erynia* (Nowakowski ex Batko) Remaudière & Hennebert, or *Zoophthora* Batko.

- 876 [CNPAF 83-04-15-2B; CP 106] DW Roberts. [Diptera]. Apr 83. Brazil: Barbalha, Ceará.
- 880 [CNPAF 83-04-15-2A; CP 110] BP Magalhães and DW Roberts. Adult, [Diptera]. Apr 83. Brazil: Barbalha, Ceará.
- 884 [CNPAF 83-04-15-2C; CP 114] BP Magalhães and DW Roberts. Adult, [Diptera]. Apr 83. Brazil: Barbalha, Ceará.
- 983 J Aoki (Ent. 18) ← H Tomiyama. *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 76. Japan: Fuchu, Tokyo Prefecture.
- 1052 J Aoki (Ent. 42) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.
- 1143 [CSIRO EM694] M Shimazu (F-344). *Eana argentana* [Lepidoptera: Tortricidae]. Acc'd 4 Apr 84. Japan: Hokkaido Prefecture.
- 1241 [CNPAF 84-04-13-1C; CP 141] DW Roberts. Larva, [Lepidoptera]. 13 Apr 84. Brazil: CNPAF, Goiânia, Goiás.
- 1266 J Aoki (Ent. 34) ← M Shimazu. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.
- 1267 J Aoki (Ent. 37) ← M Shimazu. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.
- 1338 S Balazy (1559). [Diptera: Brachycera] attached to the leaves of arboraceous plants. 22 May 83. Poland: Bialowieza National Park.
- 1666 JV Maddox, MR McGuire and MJ Morris. *The-rioaphis maculata* [Homoptera: Aphididae] in clover field. May 84. USA: Illinois.
- 2027 JA Harper. 4th instar larva, *Pseudoplusia includens* [Lepidoptera: Noctuidae]. Acc'd 28 Oct 85. USA: Auburn, Alabama.
- 2097 DG Holdom (130286). ?*Hydrellia* sp. [Diptera: Ephydriidae]. 13 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2279 IL Sivcev (20/86). [Homoptera: Aphididae] on *Cichorium intybus*. 10 Jun 86. Yugoslavia: Zemun, Belgrade.
- 2292 IL Sivcev (42/86). *Macrosiphum euphorbiae* [Homoptera: Aphididae] on cabbage. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2294 IL Sivcev (55/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2495 J Eilenberg (KVL 14) ← T Møhl. [Diptera]. 30 Jun 86. Denmark: Strandholm, Faarevejle.
- 2507 J Eilenberg (KVL 39) and N Wilding. [Diptera: Chironomidae]. 31 Aug 87. England: Rothamsted Experimental Station, Harpenden, Hertfordshire.
- 2525 J Eilenberg (KVL 34). *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 87. Denmark: Holmegaards Mose.
- 2536 J Eilenberg (KVL 18). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.
- 2537 J Eilenberg (KVL 23). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.
- 2538 J Eilenberg (KVL 20). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.
- 2539 J Eilenberg (KVL 22). *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.
- 2553 [ARSEF 2662 (deaccessioned)] J Eilenberg (KVL 19) and J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. 31 Jul 86. Denmark: Holmegaards Mose.
- 2663 J Eilenberg (KVL 33) ← J Martin. *Rhagonycha fulva* [Coleoptera: Cantharidae]. Aug 87. Denmark: Holmegaards Mose.
- 2664 J Eilenberg (KVL 40). [Coleoptera: Cantharidae]. Jun 87. Denmark: Brogaard, Lammfjorden.

Erynia aquatica (Anderson & Ringo in Anderson & Anagnostakis) Humber
[Zygomycetes: Entomophthorales]

Vegetative growth of this species is very sparse and slow. Strains should be in liquid tissue culture media incubated at 0-4°C.

- 750 RA Humber and RG Lawlor. Adult, *Aedes* sp. [Diptera: Culicidae]. USA: Cambridge, New York.
- 764 RA Humber and RG Lawlor. Pupa, [Diptera: Culicidae]. Jun 82. USA: Memorial Rock, Sapsucker Woods, Ithaca, New York.

Erynia conica (Nowakowski) Remaudière & Hennebert
[Zygomycetes: Entomophthorales]

- 1439 N Hywel-Jones (H84178-2). *Simulium* sp. [Diptera: Simuliidae]. Jun 84. England: Fingle Bridge (River Teign), Dartmoor National Park, Devon.
- 1752 S Keller (527). [Diptera: Simuliidae]. 24 Oct 84. Switzerland.
- 1753 S Keller (528). [Diptera: Simuliidae]. 24 Oct 84. Switzerland.
- 2274 EL Cuebas-Incle (III). Adult, [Diptera: Chironomidae]. 2 Oct 85. USA: Six Mile Creek, Brooktondale, New York.
- 2275 EL Cuebas-Incle (IV). Gravid female, [Diptera: Simuliidae]. 2 Oct 85. USA: Six Mile Creek, Brooktondale, New York.

2277 EL Cuebas-Incle (VI). Adult, [Diptera: Chironomidae]. 20 Jun 85. USA: Six Mile Creek, Ithaca, New York.

2405 RI Samuels. Adult, [Diptera: Chironomidae]. Sep 86. England: Newton Park, Avon.

Erynia curvispora (Nowakowski) Remaudière & Hennebert
 [Zygomycetes: Entomophthorales]

802 EL Cuebas-Incle. Adult, *Simulium* sp. [Diptera: Simuliidae]. 24 Jul 82. USA: outlet, Dryden Lake, Dryden, New York.

1754 S Keller (529). [Diptera: Simuliidae]. 24 Oct 84. Switzerland.

Erynia ovispora (Nowakowski) Remaudière & Hennebert
 [Zygomycetes: Entomophthorales]

399 S Keller (100). [Diptera: Psychodidae]. 12 Jun 78. Switzerland.

400 S Keller (102). [Diptera: Psychodidae]. 12 Jun 78. Switzerland.

Erynia rhizospora (Thaxter) Remaudière & Hennebert
 [Zygomycetes: Entomophthorales]

219 LS Bauer. Adult, [Trichoptera]. Jun 78. USA: Dover-Foxcroft, Maine.

801 EL Cuebas-Incle. Adult, [Trichoptera]. 24 Jul 82. USA: outlet, Dryden Lake, Dryden, New York.

1440 RA Humber. Adult, [Trichoptera]. 2 Jul 84. England: Castle Drago (River Teign), Dartmoor National Park, Devon.

1441 RA Humber. Adult, [Trichoptera]. 2 Jul 84. England: Castle Drago (River Teign), Dartmoor National Park, Devon.

1442 E Descals (C-1756-4) and RA Humber. Adult, [Trichoptera]. 27 Jun 84. Wales: polluted stream, Llanfair Caereinion, Powys.

1443 RA Humber. Adult, [Trichoptera]. 21 Jun 84. England: Steps Bridge, Dartmoor National Park, Devon.

2276 EL Cuebas-Incle (V). Adult, [Trichoptera]. 26 Jul 85. USA: Michigan Hollow, Danby, New York.

2407 RI Samuels ← TB Clark and TC Reeves. Adult, [Trichoptera: Hydropsychidae]. Aug 86. England: Fingle Bridge (River Teign), Dartmoor National Park, Devon.

Erynia sciarae (Olive) Ben-Ze'ev & Kenneth
 [Zygomycetes: Entomophthorales]

1870 N Wilding (80) ← G Remaudière. Adult, [Diptera: Mycetophilidae] on soil. 30 Sep 76.

Eryniopsis caroliniana (Thaxter) Humber
 [Zygomycetes: Entomophthorales]

640 [ARSEF 213 (deaccessioned)] S Keller (69). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 81. Switzerland.

641 [ARSEF 424 (lost)] S Keller (41). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 81. Switzerland.

642 [ARSEF 212 (deaccessioned)] S Keller (65). *Tipula paludosa* [Diptera: Tipulidae]. Rec'd 10 Aug 81. Switzerland.

Filobasidiella arachnophila Malloch
 [Basidiomycetes: Filobasidiales]

2058 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Furia americana (Thaxter) Humber
 [Zygomycetes: Entomophthorales]

742 [CNPAF 82-3-10-01; CP 32] RS Soper. [Diptera]. 10 Mar 82. Brazil: CNPAF, Goiânia, Goiás.

1240 [CNPAF 84-03-30-4B; CP 140] DW Roberts. [Diptera]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.

1242 [CNPAF 84-03-30-1A; CP 142] RA Daoust, BP Magalhães and DW Roberts. [Diptera]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.

2192 [CNPAF 86-4-24; CP 202] SM dos Santos. [Diptera]. 24 Apr 86. Brazil: CNPAF, Goiânia, Goiás.

2194 [CNPAF 86-5-21-A; CP 204] SM dos Santos. [Diptera]. 21 May 86. Brazil: CNPAF, Goiânia, Goiás.

Furia crustosa (Macleod & Tyrrell) Humber
 [Zygomycetes: Entomophthorales]

2906 FPMI. [Lepidoptera]. Acc'd 3 Apr 90. Canada.

Furia ithacensis (Kramer) Humber
 [Zygomycetes: Entomophthorales]

663 JP Kramer. *Symphoromyia hirta* [Diptera: Rhagionidae]. 1 Jul 80. USA: Michigan Hollow, West Danby, New York. CULTURE EX TYPE.

1339 S Balazy (1561). [Diptera: Empididae] attached to the leaves of arboraceous plants. 22 May 83. Poland: Bialowieza National Park.

1340 S Balazy (1561a). [Diptera: Empididae] attached to the leaves of arboraceous plants. 22 May 83. Poland: Bialowieza National Park.

Furia neopyralidarum (Ben-Ze'ev) Humber
 [Zygomycetes: Entomophthorales]

1145 M Shimazu (F-356). [Lepidoptera]. Acc'd 4 Apr 84. Japan: Ibaraki Prefecture.

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Furia pieris (Li & Humber) Humber [Zygomycetes: Entomophthorales]

- 781 BF Usher. *Pieris rapae* [Lepidoptera: Pieridae].
27 Aug 82. USA: Ellis Hollow Rd, Community
Gardens, Ithaca, New York.

Furia virescens (Thaxter) Humber [Zygomycetes: Entomophthorales]

- 394 S Keller (24). *Notosteira elongata* [Hemiptera:
Miridae]. 9 Oct 75. Switzerland.
427 S Keller (250). Larva, [Lepidoptera]. Rec'd 6 Feb 80.
Switzerland.
470 S Keller (251). [Lepidoptera: Noctuidae]. Rec'd
27 May 80. Switzerland.
1129 S Keller (416). [Lepidoptera: Noctuidae]. 18 Aug 82.
Switzerland.

Fusarium sp. [Hyphomycetes]

- 687 DW Roberts (101181-4). *Nilaparvata lugens* [Homop-
tera: Delphacidae]. 11 Oct 81. PR China: Shanghai,
Kiangsu.
1307 TJ Poprawski (043). Nymph, *Adelphocoris* sp. [Hem-
iptera: Miridae]. 23 May 83. Italy: Acquapendente,
Lazio.
1310 TJ Poprawski (A9). Adult, *Sitona discoideus* [Cole-
optera: Curculionidae]. 8 Feb 84. Morocco: Achouria.
1522 TJ Poprawski (0121). Pupa, *Musca domestica*
[Diptera: Muscidae]. 5 Jul 84. France: La Clastre.
1641 TJ Poprawski (0138). Nymph, *Adelphocoris* sp.
[Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
1828 RA Humber (Fus.Wal) and MC Rombach. [Homop-
tera: Coccidae] on stems of young *Citrus* sp. 13 Nov
84. Sri Lanka: Walpita Farm, between Diwulapitiya
& Kotadeniyawa.
2232 K Narayanan (6). *Coccus viridis* [Homoptera: Cocci-
dae]. Rec'd 27 Aug 86. India.
2252 TJ Poprawski (8627). Adult, [Diptera: Bibionidae]
on *Solidago* sp. 16 Jun 86. France: Béhoust, Yvelines.
2302 JE Moxon (1). *Heteropsylla cubana* [Homoptera:
Psyllidae]. Oct 86. Papua New Guinea: Lowlands
Agricultural Experiment Station, Keravat, East New
Britain.
2303 JE Moxon (2). *Heteropsylla cubana* [Homoptera:
Psyllidae]. Oct 86. Papua New Guinea: Lowlands
Agricultural Experiment Station, Keravat, East New
Britain.
2333 M Feng (SA8602). *Sitobion avenae* [Homoptera:
Aphididae] on spring wheat. Summer 86. USA:
Apple valley Rd. & Klahr Rd., Parma, Idaho.
2337 M Feng (RP8601). *Rhopalosiphum padi* [Homoptera:
Aphididae] on field corn. 2 Sep 86. USA: Apple
Valley Rd. & Klahr Rd., Parma, Idaho.
2418 [SBI 87-2] H David. *Emmalocera depressella* [Lepi-
doptera: Phycitinae]. Acc'd 19 May 87. India.
2568 F Agudelo-Silva ← RL Bugg. Larva, *Chalcodermus*
aeneus [Coleoptera: Curculionidae]. Nov 87. USA:
Tifton, Georgia.
2569 F Agudelo-Silva ← RL Bugg. Larva, *Chalcodermus*
aeneus [Coleoptera: Curculionidae]. Nov 87. USA:
Tifton, Georgia.
2595 RC Rajak (ENT/10A). *Hyblaea puer* [Lepidoptera:
Hyblaeidae] on teak, *Tectona grandis*. Acc'd 12 Sep
88. India.
2736 GW Riethmacher (Ma2). *Spodoptera* sp. [Lepidop-
tera: Noctuidae]. 4 Jan 89. Philippines: La Trinidad,
Benguet.
2743 GW Riethmacher (B5Bs). Soil, using *Tenebrio*
molitor [Coleoptera: Tenebrioidae] as a trap. 6 Feb
89. Philippines: Atok, Benguet.
2776 GW Riethmacher (EB4). *Plutella xylostella* [Lepi-
doptera: Plutellidae]. 16 Apr 89. Philippines: La
Trinidad, Benguet. ARSEF 2824, *Pandora blunckii*,
also isolated from Riethmacher #EB4.
3030 W Mechaber (weevil#1318). Adult, *Anthonomus*
musculus [Coleoptera: Curculionidae] on *Lyonia*
mariana. 1 Jun 90. USA: Pemberton, New Jersey.
3031 W Mechaber (weevil#1334). Adult, *Anthonomus*
musculus [Coleoptera: Curculionidae] on *Lyonia*
mariana. 1 Jun 90. USA: Pemberton, New Jersey.
3032 W Mechaber (weevil#1354). Adult, *Anthonomus*
musculus [Coleoptera: Curculionidae] on *Lyonia*
mariana. 1 Jun 90. USA: Pemberton, New Jersey.
3051 MS Goettel (4C). Soil. Jul 90. Mali: Mordiah.
3296 J Gutierrez Samperio (12) ← ERD Reyes. *Boophilus*
sp. [Acari: Ixodidae] on cow. 1987. Mexico: Colima.
3300 J Gutierrez Samperio (16) ← ERD Reyes. *Spodoptera*
frugiperda [Lepidoptera: Noctuidae] on corn. 1988.
Mexico: Colima.
3345 F Badilla. *Aenolamia postica* [Homoptera: Cer-
copidae] on sugar cane. Nov 90. Costa Rica: San
Carlos.
3382 K Ostrovska (12) ← PG Lawlor. *Lutzomyia* sp.
[Diptera: Psychodidae]. Jul 91. Guatemala: Tical,
Petén.
3532 AE Hajek (167a). 5th instar larva, *Lymantria dispar*
[Lepidoptera: Lymantriidae]. 11 Jun 91. USA: nr. C
& O Canal, Allegany County, Maryland.
3668 TJ Poprawski (38). Nymph, *Bemisia tabaci* [Homop-
tera: Aleyrodidae] on snail vine. Jan 92. USA: El
Centro, California.
3669 TJ Poprawski (60). Nymph, *Bemisia tabaci* [Homop-
tera: Aleyrodidae] on apple tree. 4 Feb 92. USA:
Monroy Estate, El Centro, California.
3670 TJ Poprawski (5). Nymph, *Bemisia tabaci* [Homop-
tera: Aleyrodidae] on orchid tree. 3 Jan 92. USA:
Vogles Nursery, Holtville, California.
3671 TJ Poprawski (7). Nymph, *Bemisia tabaci* [Homop-
tera: Aleyrodidae] on tangerine. 14 Jan 92. USA:
Broken Spoke Trailer Park, El Centro, California.

- 3672 TJ Poprawski (19). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on ornamental kale. 30 Jan 92. Mexico: Veracruz-Tobar Ranch, Est. Victoria, Mexicali Valley, Baja California.
- 3673 TJ Poprawski (32). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on lemon tree. 22 Jan 92. USA: Brawley, California.
- 3674 TJ Poprawski (50). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 28 Jan 92. USA: Calexico, California.
- 3675 TJ Poprawski (5A). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 3 Jan 92. USA: Holtville, California.
- 3676 TJ Poprawski (2). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orange tree. 13 Jan 92. Mexico.
- 3677 TJ Poprawski (2A). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on cauliflower. 13 Jan 92. Mexico.
- 3678 TJ Poprawski (13). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on broccoli. 16 Jan 92. USA: Calexico, California.
- 3679 TJ Poprawski (15). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on kale. 17 Jan 92. Mexico: Aranzga Ranch, Est. Victoria, Mexicali Valley, Baja California.
- 3704 LA Lacey (022A). Adult, [Homoptera: Aphididae]. 6 Mar 92. Pakistan: Lahore.
- 3707 LA Lacey (021A). Adult, [Homoptera: Aphididae]. 6 Mar 92. Pakistan: Lahore.

Fusarium acuminatum Ellis & Everhart
[Hyphomycetes]

- 3218 UAMH (6730) ← MS Goettel (2B-A). [Orthoptera: Acrididae]. 17 Jul 90. Mali: Mordiah.

Fusarium avenaceum (Fries) Saccardo
[Hyphomycetes]

- 2060 GC Carroll (2(HO-O-Hatch IV)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Fusarium coccophilum (Desmazieres) Wollenweber & Reinking
[Hyphomycetes]

- 821 GG Soares (1). *Melanaspis obscura* [Homoptera: Diaspididae]. Acc'd Winter 83. USA: Washington, District of Columbia.
- 2098 DG Holdom (180186). *Lepidosaphes* sp. [Homoptera: Diaspididae]. 18 Jan 86. Indonesia: "Jeruk Siam" Plantation, Sukamundi, Jawa Barat, Java.

Fusarium lateritium Nees:Fries
[Hyphomycetes]

- 1331 [ARSEF 1416] S Balazy (1437). Adult, [Hymenoptera: Ichneumonidae] in coniferous forest undergrowth. 1 Sep 81. Poland: Wielkopolski National Park.
- 1416 [ARSEF 1331] S Balazy (1437). Adult, [Hymenoptera: Ichneumonidae] in coniferous forest undergrowth. 1 Sep 81. Poland: Wielkopolski National Park.
- 2304 [PSU L-237] JE Moxon (3). *Heteropsylla cubana* [Homoptera: Psyllidae]. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Fusarium merismoides Corda
[Hyphomycetes]

- 2059 GC Carroll (B). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Fusarium moniliforme Sheldon
[Hyphomycetes]

- 2074 H David. *Melanaspis glomerata* [Homoptera: Diaspididae]. Acc'd 10 Jan 86. India: Sugarcane Breeding Institute, Coimbatore, Tamil Nadu.

Fusarium moniliforme var. *intermedium* Neish & Leggett
[Hyphomycetes]

- 3223 [IMI 330803] DW Roberts ← PR Srinivas. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd 22 Mar 91. India.

Fusarium nygamai Burgess & Trimboli
[Hyphomycetes]

- 2316 [PSU M-3959] VS Bhatnagar. *Raghuva albipunctella* [Lepidoptera: Noctuidae]. 8 Oct 86. Senegal: Kaolack.

Fusarium oxysporum Schlechtendahl
[Hyphomycetes]

- 1371 TJ Poprawski (83-11). Pupa, *Delia radicum* [Diptera: Anthomyiidae]. 24 Aug 83. Canada: L'Acadie, Québec.

Fusarium polyphialidicum Marasas, Nelson, Tousoun & van Wyk
[Hyphomycetes]

- 3692 AE Hajek (114). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 7 Jun 91. USA: nr. Freese Rd., Ithaca, New York.
- 3693 AE Hajek (325). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: nr. Birchwood So., Ithaca, New York.

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- 3694 AE Hajek (E.M.F. #3) or (325) ← J Boettner. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Oct 91. USA: nr. Birchwood So., Holyoke Range, Massachusetts.
- 3695 AE Hajek (11). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 21 Jun 91. USA: Weakley Hollow, Madison County, Virginia.
- 3696 AE Hajek (26). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: nr. C & O Canal, Allegany County, Maryland.

Fusarium sambucinum [Hyphomycetes]

- 3483 AE Hajek ← VC Mastro. 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 30 May 91. USA: St. Paul's Church, Vesuvius, Virginia.

Fusarium semitectum Berkeley ex Ravanel [Hyphomycetes]

- 2053 MC Rombach (071185-3) ← SB Ahn (E1-7 & E1-5). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 1985. Korea.
- 2299 [PSU R-8540] M Holderness ← JE Moxon (CCR14-4). *Heteropsylla incisa* [Homoptera: Psyllidae] on *Leucaena leucocephala*. Sep 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.
- 2300 [PSU R-8541] M Holderness ← JE Moxon (CCR15-6). *Heteropsylla incisa* [Homoptera: Psyllidae] on *Leucaena leucocephala*. Sep 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Fusarium solani (Martius) Saccardo [Hyphomycetes]

- 1148 TJ Poprawski (83-06). Pupa, *Delia radicum* [Diptera: Anthomyiidae]. 24 Aug 83. Canada: L'Acadie, Québec.
- 2311 [PSU S-1145] JE Moxon (12). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.
- 2312 [PSU S-1146] JE Moxon (15). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.
- 2313 [PSU S-1147] JE Moxon (16). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.
- 2314 [PSU S-1148] JE Moxon (17). Diseased cocoa pods. Oct 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Fusarium subglutinans (Wollenweber & Reinking) Nelson, Tousson & Marasas [Hyphomycetes]

- 2141 H David (1). *Scirpophaga excerptalis* [Lepidoptera: Pyralidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.

- 2142 H David (3). *Chilo sacchariphagus indicus* [Lepidoptera: Pyralidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.
- 2143 H David (8). *Pyrilla perpusilla* [Hemiptera: Lophopidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.
- 2144 H David (9). *Pyrilla perpusilla* [Hemiptera: Lophopidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.
- 2145 H David (10). *Pulvinaria elongata* [Homoptera: Coccidae]. Acc'd 2 Apr 86. India: Coimbatore, Tamil Nadu.
- 2301 [PSU M-3856] M Holderness ← JE Moxon (CCR16-6). *Heteropsylla incisa* [Homoptera: Psyllidae]. Sep 86. Papua New Guinea: Lowlands Agricultural Experiment Station, Keravat, East New Britain.

Gibellula sp.

[Hyphomycetes]

Gibellula cultures are either sterile or produce no conidigenous apparatus characteristic of this genus as found on infected spiders.

- 569 RS Soper (81223-1). [Araneida]. 23 Feb 81. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatra.
- 570 RS Soper (81228-1). [Araneida]. 28 Feb 81. Indonesia: NW of Denpasar, Kabupaten Tabanan, Subak Kota Bongan, Bali.
- 1669 G Riba (C-37). [Araneida]. Acc'd 29 Oct 84. France.

Gibellula clavulifera var. *alba* Rombach & Humber [Hyphomycetes]

Gibellula cultures are either sterile or produce no conidigenous apparatus characteristic of this genus as found on infected spiders.

- 1909 MC Rombach (9(int.myc.)). *Euophrys ?trivittata* [Araneida: Salticidae] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Gibellula pulchra (Saccardo) Cavara [Hyphomycetes]

Gibellula cultures are either sterile or produce no conidigenous apparatus characteristic of this genus as found on infected spiders.

- 1732 MC Rombach (Gib-Gam). [Araneida]. 13 Nov 84. Sri Lanka: Hemeratgoda Botanical Garden, Gampaha.

Giocladium roseum (Link:Fries) Thom [Hyphomycetes]

- 3001 SV Krueger (MF-S). Soil. Feb 90. USA: Geneva, New York.

Hirsutella sp. 1 [Hyphomycetes]

- 2939 M Skinner (Ch, BG and 60(5WM)) ← JF Yuill. *Taeniothrips inconsequens* [Thysanoptera: Thripidae].

- Sep 89. USA: Buel's Grove, Chittenden County, Vermont.
- 2940 M Skinner (Ch, BG and 61(8WM)) ← JF Yuill. *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Sep 89. USA: Buel's Grove, Chittenden County, Vermont.
- Hirsutella* sp.**
 [Hyphomycetes]
 Strains listed here have not been satisfactorily identified to species largely due to the lack of adequate taxonomic information for the majority of species in this large and important genus. *Hirsutella* is a known or possible synanamorph for many other hyphomycete entomopathogens with teleomorphs classified in the Clavicipitaceae (Pyrenomycetes: Clavicipitaceae).
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- 568 RS Soper (81225-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 25 Feb 81. Indonesia: Salek I Village, Muba District, Sumatera Selatan, Sumatra.
- 970 [GCRI 45-81] RA Hall. *Abacarus hystrix* [Acari: Eriophyidae]. Acc'd 17 Oct 83. England.
- 1096 [ARSEF ?1256; IRRI 4A] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. 17 Oct 83. Philippines: IRRI, Los Baños, Manila.
- 1551 MC Rombach (H.sep.) ← AT Barrion. *Sepedon spegeus* [Diptera: Sciomyzidae] on rice. 21 Jun 84. Philippines: Brooke's Point region, Palawan.
- 1625 SG Wraight and SP Wraight. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1668 MS McClure. *Nuculaspis tsugae* [Homoptera: Diaspididae] on *Tsuga sieboldii*. 17 May 84. Japan: 1200 m, Mt. Odai-ga-hara, Nara Prefecture.
- 2208 MC Rombach (030786-2) ← AT Barrion. *Cyrtorhinus lividipennis* [Hemiptera: Miridae] on rice leaf. 1 Jul 86. Philippines: nr. Bo. Looc, Villanueva, Misamis Oriental.
- 2209 MC Rombach (070786-5). *Cyrtorhinus lividipennis* [Hemiptera: Miridae] on rice leaf. 7 Jul 86. Philippines: nr. Bo. Looc, Villanueva, Misamis Oriental.
- 2581 D Strongman (1). [Lepidoptera]. Acc'd 9 Aug 88. Canada.
- 2644 [CNPAF 88-07-16-4; CP 256] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2645 [CNPAF 88-07-16-5; CP 257] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2646 [CNPAF 88-07-16-6; CP 258] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2647 [CNPAF 88-07-16-7; CP 259] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2648 [CNPAF 88-07-16-9; CP 260] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2649 [ARSEF 2992; CNPAF 88-07-16-10; CP 261] DW Roberts ← EC de Moura (H-10), E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2650 [ARSEF 2993; CNPAF 88-07-16-11; CP 262] DW Roberts ← EC de Moura (H-11), E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2651 [CNPAF 88-07-16-12; CP 263] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2652 [CNPAF 88-07-16-13; CP 264] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2653 [CNPAF 88-07-16-14; CP 265] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2654 [CNPAF 88-07-16-15; CP 266] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2655 [CNPAF 88-07-16-16; CP 267] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2656 [CNPAF 88-07-16-17; CP 268] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2657 [CNPAF 88-07-16-18; CP 269] DW Roberts ← EC de Moura, E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 2795 BA Jaffee (Hr79a). [Acari]. 3 Jul 89. USA: Yolo County, California.
- 2796 BA Jaffee (Hr79b). [Acari]. 3 Jul 89. USA: Yolo County, California.
- 2797 BA Jaffee (Hr79c). [Acari]. 3 Jul 89. USA: Yolo County, California.
- 2798 BA Jaffee (Hr79d). [Acari]. 3 Jul 89. USA: Yolo County, California.
- 2799 [IMI 307969] BA Jaffee (Hr58). [Collembola]. 10 Jun 86. USA: Livingston, California.

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- 2801 BA Jaffee (Hr63). [Acari]. 24 Sep 86. USA: Livingston, California.
- 2802 BA Jaffee (Hr65). [Acari]. 8 Nov 86. USA: Livingston, California.
- 2803 BA Jaffee (H69). [Acari]. 22 Apr 88. USA: Livingston, California.
- 2992 [ARSEF 2649; CNPAF 88-07-16-10; CP 261] L Allee ← EC de Moura (H-10), E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.
- 3546 M Brownbridge (R-4). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 20 Nov 91. USA: Laggis' sugar maple stand, Caledonia County, Vermont.
- 3548 M Brownbridge (R-9). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 20 Nov 91. USA: Perry's sugar maple stand, Orange County, Vermont.
- 3553 M Brownbridge (R-15). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Rowe's sugar maple stand, Caledonia County, Vermont.

Hirsutella bogoriensis (sp. nov., unpublished)

[Hyphomycetes]

Provisional name for undescribed new species.

- 2187 MC Rombach (220386-1). 22 Mar 86. Korea.

Hirsutella brownorum Minter & Brady

[Hyphomycetes]

- 3509 P Timper. [Acari] in soil. Rec'd 13 Dec 91. USA: nr. Portageville, Wyoming County, New York.

Hirsutella citrififormis Speare

[Hyphomycetes]

- 490 RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRRI, Los Baños, Manila.
- 532 DW Roberts (82180-2a). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Aug 80. Indonesia: Tanjungkarang, Lampung, Sumatra.
- 591 RS Soper (81226-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Feb 81. Indonesia: Bantul District, Yogyakarta, Java.
- 684 DW Roberts (102981-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 81. Philippines: Los Baños, Manila.
- 1035 [ARSEF 1446] CBS (418.82). *Myndus crudus* [Homoptera: Cixiidae]. 1979. USA: Fort Pierce, Florida.
- 1036 CBS (912.70) ← E Müller-Kögler ← SL Valencia. *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Nov 70. Philippines: IRRRI, Los Baños, Manila.
- 1062 [IRRI 10B] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Oct 83. Philippines: IRRRI, Los Baños, Manila.

- 1063 [IRRI 10A] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Oct 83. Philippines: IRRRI, Los Baños, Manila.
- 1064 [IRRI GA] RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Oct 83. Philippines: IRRRI, Los Baños, Manila.
- 1243 [IRRI 1A] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1244 [IRRI 1B] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1245 [IRRI 1C] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1246 [IRRI 2D] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1247 [IRRI 2H] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1248 [IRRI 2I] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1249 [IRRI 2J] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1250 [IRRI 3D] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1251 [IRRI 3C(2)] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1252 [IRRI 3F] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1253 [IRRI 3G] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1254 [IRRI 4B(a)] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1255 [IRRI 4B] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1256 [ARSEF ?1096; IRRI 4A] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1257 [IRRI 4C] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
- 1258 [IRRI 5B] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.

- 1259 [IRRI 5C] MC Rombach ← DW Roberts. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd Mar 84. Philippines.
 - 1436 MC Rombach (10B). *Nilaparvata lugens* [Homoptera: Delphacidae]. 1984. Philippines: IRRI field, Los Baños, Manila.
 - 1446 [ARSEF 1035; CBS 418.82] MC Rombach. *Myndus crudus* [Homoptera: Cixiidae]. 1979. USA: Fort Pierce, Florida.
 - 1549 MC Rombach (H.min.) ← BM Shepard. *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Jun 84. Philippines: Mindanao.
 - 1550 MC Rombach (H.Pal.). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Jun 84. Philippines: Brooke's Point region, Palawan.
 - 1837 DW Roberts (H.citrif) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 2 Nov 84. Sri Lanka: greenhouse colony, Central Agricultural Research Institution, Gannoruwa (Peradeniya).
 - 1908 MC Rombach (5). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.
 - 1913 DW Roberts (040485-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. 4 Apr 85. Solomon Islands: nr. Honiara, Guadalcanal.
 - 1917 DG Holdom (10). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Mar 85. Indonesia: nr. Jakarta, Jawa Barat, Java.
 - 1918 DG Holdom (11). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Mar 85. Indonesia: nr. Jakarta, Jawa Barat, Java.
 - 1919 DG Holdom (12). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Mar 85. Indonesia: nr. Jakarta, Jawa Barat, Java.
 - 2099 DG Holdom (280186-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
 - 2100 DG Holdom (280186-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
 - 2101 DG Holdom (280186-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
 - 2102 DG Holdom (280186-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
 - 2103 DG Holdom (280186-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
 - 2346 [ARSEF 2388 (never frozen)] MC Rombach (111286-4). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 11 Dec 86. Indonesia: nr. Klaten, Jawa Tengah, Java.
 - 2347 [ARSEF 2389 (never frozen)] MC Rombach (181286-1B). *Heteropsylla cubana* [Homoptera: Psyllidae]. 18 Dec 86. Philippines: Leyte.
 - 2420 DG Holdom (050187-1) ← D Djuriadi. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Jan 87. Indonesia: Purwakerto, Jawa Barat, Java.
 - 2422 DG Holdom (310187-4) ← D Djuriadi. *Nilaparvata lugens* [Homoptera: Delphacidae]. 31 Jan 87. Indonesia: Purwakerto, Jawa Barat, Java.
 - 2423 DG Holdom (310187-5) ← D Djuriadi. *Nilaparvata lugens* [Homoptera: Delphacidae]. 31 Jan 87. Indonesia: Purwakerto, Jawa Barat, Java.
 - 2426 DG Holdom (080287-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 8 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
 - 2428 DG Holdom (170287-1). Nymph, [Homoptera: Delphacidae]. 17 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
 - 2598 MC Rombach ← LT Villacarlos. *Heteropsylla cubana* [Homoptera: Psyllidae]. 1987. Philippines: Visayas, Leyte.
-
- Hirsutella gigantea* Petch**
[Hyphomycetes]
- 30 RS Soper ← DE Leonard. [Hymenoptera: Pamphiliidae]. 24 Jun 74. USA: Vanceboro, Maine.
 - 177 [FPMI 755] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 10 May 77. USA: Lincoln, Maine.
 - 178 [FPMI 756] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. May 77. USA: Greenville, Maine.
-
- Hirsutella guyana* Minter & Brady**
[Hyphomycetes]
- 878 [CNPAF 83-04-13-2L; CP 108] BP Magalhães and DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.
 - 879 [CNPAF 83-04-13-2P; CP 109] BP Magalhães and DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.
 - 881 [CNPAF 83-04-13-2M; CP 111] BP Magalhães and DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.
 - 882 [CNPAF 83-04-13-Q; CP 112] BP Magalhães and DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 13 Apr 83. Brazil: Goianinha, Rio Grande do Norte.

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- 883 [CNPAF 83-04-21-1J; CP 113] BP Magalhães and DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 21 Apr 83. Brazil: Goianinha, Rio Grande do Norte.
- 2352 [ARSEF 2387] MC Rombach (201286-2). [Homoptera: Cicadellidae] on *Maoutia* sp. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2387 [ARSEF 2352] MC Rombach (201286-2). [Homoptera: Cicadellidae] on *Maoutia* sp. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2993 [ARSEF 2650; CNPAF 88-07-16-11; CP 262] L Allee ← EC de Moura (H-11), E Dias Quintela and SM dos Santos. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 16 Jul 88. Brazil: Caucaia, Ceará.

Hirsutella haptosporus

[Hyphomycetes]

- 2226 S Balazy (1765). [Acari: Uropodina] in an ant hill. Acc'd 4 Sep 86. Poland: Jarocin, Kalisz.

Hirsutella inasperata Humber & Rombach

[Hyphomycetes]

See note for *Aschersonia inasperata*; *H. inasperata* is a minor synanamorph of this *Aschersonia* species.

- 2396 MC Rombach (301286-9). *Dialeurodes citri* [Homoptera: Aleyrodidae]. 30 Dec 86. Philippines: tropical forest, Mt. Makiling, Los Baños, Manila.

Hirsutella nr. *haptosporus*

[Hyphomycetes]

- 1362 S Balazy (1613b). Rec'd 19 May 84. Poland.
- 1363 S Balazy (1613c). Rec'd 19 May 84. Poland.
- 1364 S Balazy (1613d). Rec'd 19 May 84. Poland.
- 2228 S Balazy (1770). [Diptera: Itonididae] under pine bark. Acc'd 4 Sep 86. Poland: District Forest, Sierakov, Pniewy.

Hirsutella radiata Petch

[Hyphomycetes]

- 1369 S Balazy (1441). [Diptera: ?Lauxaniidae] on stem of *Urtica Dioica* in a deciduous forest. 1 Sep 81. Poland: Wielkopolski National Park.

Hirsutella repens

[Hyphomycetes]

- 2348 [ARSEF 2359, 2394] MC Rombach (090586-1) ← RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 86. Korea.
- 2359 [ARSEF 2348, 2394] MC Rombach (090586-1) ← RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 86. Korea.
- 2394 [ARSEF 2348, 2359] MC Rombach (090586-1) ← RM Aguda. *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 86. Korea.

Hirsutella rhossiliensis Minter & Brady

[Hyphomycetes]

Synonym: *Hirsutella heteroderae* Sturhan & Schneider

- 2006 [UAMH 5977] BA Jaffee (Hr31). *Criconemella xenoplax* [Tylenchida: Criconematidae]. 25 Oct 83. USA: Erie County, Pennsylvania.
- 2007 BA Jaffee (Hr42). *Criconemella curvata* [Tylenchida: Criconematidae]. 11 Mar 84. USA: Adams County, Pennsylvania.
- 2008 BA Jaffee (Hr43). *Criconemella xenoplax* [Tylenchida: Criconematidae]. 12 Apr 84. USA: Adams County, Pennsylvania.
- 2788 BA Jaffee (Hr72). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 12 Jun 89. USA: San Joaquin County, California.
- 2789 BA Jaffee (Hr73). Male, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 12 Jun 89. USA: San Joaquin County, California.
- 2790 BA Jaffee (Hr74). Male, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.
- 2791 BA Jaffee (Hr75). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.
- 2792 BA Jaffee (Hr76). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.
- 2793 BA Jaffee (Hr77). Phylum Nemata, Class Secernemtia. 19 Jun 89. USA: Solano County, California.
- 2794 BA Jaffee (Hr78). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. 19 Jun 89. USA: Solano County, California.
- 2894 CBS (216.78) ← R Schneider. *Heterodera humuli* [Tylenchida: Heteroderidae]. Acc'd 21 Nov 89. Germany. CULTURE EX TYPE of *Hirsutella heteroderae*.
- 2931 BA Jaffee (Hr80). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field; grower = Watanabi, San Joaquin County, California.
- 2932 BA Jaffee (Hr81). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field; grower = Norman, San Joaquin County, California.
- 2933 BA Jaffee (Hr82). Juvenile, *Heterodera schachtii* [Tylenchida: Heteroderidae]. Sep 89. USA: sugar beet field #5, Solano County, California.
- 3207 P Timper (C3). Phylum Nemata, Class Secernemtia. 20 Oct 91. USA: Wyoming County, New York.

Hirsutella satumaensis Aoki

[Hyphomycetes]

- 996 J Aoki (Hir. 1) ← K Katagiri ← T Kushida. *Dioryctria sylvestrella* [Lepidoptera: Pyralidae]. May 69. Japan: Hachioji, Tokyo Prefecture.

Hirsutella strigosa Petch
[Hyphomycetes]

- 2044 [UAMH 5978] MC Rombach (071185-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 7 Nov 85. Philippines: greenhouse colony, IRRI, Los Baños, Manila.
- 2197 MC Rombach (090686-1). *Nephotettix virescens* [Homoptera: Cicadellidae]. 9 Jun 86. Philippines: IRRI field, Los Baños, Manila.

Hirsutella subulata Petch
[Hyphomycetes]

- 2227 S Balazy (1809) ← RT Mietkiewski. [Lepidoptera: Microlepidoptera]. Acc'd 4 Sep 86. Poland: Siedlce.

Hirsutella thompsonii Fisher
[Hyphomycetes]

The separation of *H. thompsonii* into two varieties based on whether synnemata may or may not form in culture is unreliable and probably artificial. Some strains included may form synnemata but do not do so consistently; these strains could be recognized as *Hirsutella thompsonii* var. *synnematos* Samson, McCoy & O'Donnell if accepting this variety as a legitimate taxon.

- 137 [ATCC 24874; CBS 952.73] CW McCoy (Fla. 68). *Phyllocoptruta oleivora* [Acari: Eriophyidae]. 1970. USA: Orlando, Florida.
- 241 [CBS 556.77B] CW McCoy. *Phyllocoptruta oleivora* [Acari: Eriophyidae] on citrus. 1972. USA: Lake Alfred, Florida.
- 253 [CBS 556.77C] CW McCoy. *Phyllocoptruta oleivora* [Acari: Eriophyidae] on citrus. 1975. USA: Lake Alfred, Florida.
- 254 [CBS 555.77] CW McCoy ← JR Baker. *Acalitus vaccinii* [Acari: Eriophyidae] on blueberry. 1967. USA: Raleigh, North Carolina.
- 255 [ARSEF ?411; ATCC 3010; CBS 556.77A] CW McCoy ← CM Searle. *Eriophyes sheldoni* [Acari: Eriophyidae] on citrus. 1970. Zimbabwe: Mazoe.
- 256 [CBS 450.78] CW McCoy ← RA Hall. *Eriophyes guerreronis* [Acari: Eriophyidae] on coconut. 1978. Jamaica.
- 257 [CBS 451.78] CW McCoy ← RA Hall. *Eriophyes guerreronis* [Acari: Eriophyidae] on coconut. Mar 78. Ivory Coast.
- 258 [ARSEF 414; CBS 452.78] CW McCoy ← RA Hall. *Colomerus novaehbridensis* [Acari: Eriophyidae] on coconut. May 78. Papua New Guinea: New Britain.
- 259 [CBS 556.77D] CW McCoy ← B Villalon. *Phyllocoptruta oleivora* [Acari: Eriophyidae] on citrus. 1972. USA: Weslaco, Texas.
- 414 [ARSEF 258; CBS 452.78] RA Hall. *Colomerus novaehbridensis* [Acari: Eriophyidae] on coconuts. May 78. Papua New Guinea: New Britain.
- 1947 MC Rombach. [Acari: Tarsonemidae] on beans. Jul 85. Philippines: Palawan. This strain may produce synnemata in vitro.

- 2012 CIRPON ← DR Sosa Gomez. *Phyllocoptruta oleivora* [Acari: Eriophyidae]. 1984. Argentina: Tucumán.
- 2459 TJ Poprawski (8703) ← AJ Nasca (Ht-R). *Eriophyes sheldoni* [Acari: Eriophyidae]. Acc'd 23 Oct 87. Zimbabwe. This strain may produce synnemata in vitro.
- 2464 TJ Poprawski (8704) ← AJ Nasca (Ht-T1). *Phyllocoptruta oleivora* [Acari: Eriophyidae]. 1983. Argentina: Tucumán.
- 2800 BA Jaffee (H59). [Acari]. 10 Jun 86. USA: Livingston, California.
- 3323 R Ochoa and TG Zoebisch ← A Gamboa. *Dolichotetranychus floridanus* [Acari: Tenuipalpidae] on pineapple (*Ananas cosmosus* (L.) Mell.). Rec'd 30 Apr 91. Costa Rica: PINDECO (Del Monte pineapple industry), Buenos Aires, Puntarenas.
- 3482 TG Zoebisch. Rec'd 28 Oct 91.

Hirsutella versicolor Petch
[Hyphomycetes]

- 1034 [ARSEF 1557 (deaccessioned)] CBS (422.82) ← HC Evans. [Homoptera: Membracidae] on forest herb. Jul 82. Brazil: Jari-Monte Dourado, Pará.
- 1037 CBS (423.82) ← HC Evans. [Homoptera: Membracidae] on cacao leaf together with *Torrubiella pruinosa*. Jul 82. Brazil: Ovro Petro, Rondônia.

Hirsutella verticilloides Fisher
[Hyphomycetes]

- 2599 MC Rombach (190688-1) ← AT Barrion. *Idioscopus clypealis* [Homoptera: Cicadellidae] on Indian mango, *Mangifera indica* L. Acc'd 12 Sep 88. Philippines: Umali Subdivision, Los Baños, Manila.

Humicola sp.
[Hyphomycetes]

- 2069 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Hymenostilbe verrucosa Mains
[Hyphomycetes]

- 2002 M Shimazu. [Araneida]. 16 Jul 85. USA: Allegany State Park, Salamanca, New York.

Lagenidium caudatum Barron
[Oomycetes: Lagenidiales]

- 2003 [ATCC 58383] BA Jaffee (LcD). *Xiphinema rivesi* [Dorylaimida: Longidoridae]. Aug 84. USA: Snyder County, Pennsylvania.

Lagenidium giganteum Couch
[Oomycetes: Lagenidiales]

- 373 [ARSEF 746 (deaccessioned)] JN Couch ← SV Romney (LGNC-1). *Culisetia melanura* [Diptera: Culicidae]. 1975. USA: Chapel Hill, North Carolina.

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- 748 AL Knight (LG/NC-2). [Diptera: Culicidae]. 1979. USA: Chapel Hill, North Carolina.
- 749 HC Chapman and FE Glenn. *Culex territans* [Diptera: Culicidae]. 1975. USA: Moss Bluff, Louisiana.
- 1384 EM McCray and CJ Umphlett. *Culex tarsalis* [Diptera: Culicidae]. 1979. USA: Colusa, California.
- 2529 [ARSEF ?1940] SP Frances (LAG) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 8 Jun 85. Australia: Millaa Millaa, Queensland.
- 2530 SP Frances (MALANDA1) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Apr 86. Australia: Malanda, Queensland.
- 2531 [ATCC 76240] SP Frances (MILLAA1) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Apr 86. Australia: Millaa Millaa, Queensland.
- 2532 SP Frances (MILLAA2) and AW Sweeney. Larva, *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 16 Apr 86. Australia: Millaa Millaa, Queensland.
- 2533 SP Frances (MILLAA3) and AW Sweeney. *Forcipomyia marksae* [Diptera: Ceratopogonidae]. 14 Jun 87. Australia: Millaa Millaa, Queensland.
- 3326 JL Kerwin. Larva, [Diptera: Culicidae]. Rec'd 20 May 91. Colombia: nr. Medellin, Antioquia.
- 3327 [ARSEF 3328 (deaccessioned)] JL Kerwin (BS). *Aedes melanimon* [Diptera: Culicidae]. May 87. USA: duck club, Butte Sink area, nr. Colusa, California.

Leptolegnia sp.

[Oomycetes: Saprolegniales]

- 2004 [ATCC 58384] BA Jaffee (WPG). *Xiphinema* sp. [Dorylaimida: Longidoridae]. 23 Jul 84. USA: Snyder County, Pennsylvania.

Leptolegnia chapmanii Seymour

[Oomycetes: Saprolegniales]

- 2562 [ARSEF 2680] JC Lord (Bartow A). *Mansonia titillans* [Diptera: Culicidae]. 8 Feb 88. USA: abandoned phosphate pit, Bartow, Florida.
- 2680 [ARSEF 2562] JC Lord (Bartow A). *Mansonia titillans* [Diptera: Culicidae]. Rec'd 6 Feb 89. USA: abandoned phosphate pit, Bartow, Florida.
- 2681 JC Lord ← TJ McInnis. *Culex pipiens quinquefasciatus* [Diptera: Culicidae]. Rec'd 6 Feb 89. USA: Clemson, South Carolina.
- 2682 JC Lord. *Culex* sp. [Diptera: Culicidae]. 1987. USA: ground pool, Levy County, Florida.

Macrobiotophthora vermicola (McCulloch) Tucker

[Zygomycetes: Entomophthorales]

- 650 EC Bernard. *Cruznema lambdiense* [Rhabditida: Rhabditidae]. 1977. USA: Tennessee.

Massospora cicadina Peck

[Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 374 RS Soper. *Magicicada septendecim* [Homoptera: Cicadidae]. 16 Jun 79. USA: Mohawk Lake Preserve, New Paltz, New York.

Metarhizium sp.

[Hyphomycetes]

- 2210 [ARSEF 2225] MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 86. Indonesia: Baritiwutung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.
- 2224 MC Rombach (140486). [Coleoptera: Curculionidae]. 14 Apr 86. Indonesia.
- 2225 [ARSEF 2210] MC Rombach (140486-1) ← H Beddu Rewa. [Coleoptera: Curculionidae] on palm tree. 22 Mar 86. Indonesia: Baritiwutung (Butterfly Valley), nr. Ujungpandang, Sulawesi Selatan, Celebes.
- 2556 S Sandoval (87). Acc'd 18 Mar 88. Ecuador.
- 2596 RC Rajak (ENT/12). *Pyrausta machaeralis* [Lepidoptera: Pyralidae] on teak, *Tectona grandis*. Acc'd 12 Sep 88. India.
- 3612 IMI (I91-646). *Kraussaria angulifera*. Rec'd 26 Feb 92. Benin.
- 3613 IMI (I91-647). *Hieroglyphus daganensis*. Rec'd 26 Feb 92. Benin.
- 3614 IMI (I91-671). *Kraussaria angulifera*. Rec'd 26 Feb 92. Benin.
- 3615 IMI (I91-672). *Zonocerus variegatus* [Orthoptera: Pyrgomorphidae]. Rec'd 26 Feb 92. Guinea-Bissau.
- 3616 IMI (I91-673). *Diaboloctantops axillaris*. Rec'd 26 Feb 92. Tchad.
- 3617 IMI (I91-674). *Acrida bicolor*. Rec'd 26 Feb 92. Tchad.
- 3618 IMI (I91-675). *Zonocerus variegatus* [Orthoptera: Pyrgomorphidae]. Rec'd 26 Feb 92. Mali.

Metarhizium album Petch

[Hyphomycetes]

- 1840 MC Rombach. *Nephotettix virescens* [Homoptera: Cicadellidae]. Acc'd 29 Jan 85. Philippines: IRRRI, Los Baños, Manila.
- 1941 MC Rombach (MPAL) ← DJ Im. *Nephotettix virescens* [Homoptera: Cicadellidae] on rice. Jul 85. Philippines: Roxas, Palawan.
- 1942 MC Rombach (MLAG). *Nephotettix virescens* [Homoptera: Cicadellidae] on rice. Nov 84. Philippines: Laguna.
- 1943 MC Rombach (MLAGwhite). *Nephotettix virescens* [Homoptera: Cicadellidae] on rice. Nov 84. Philippines: Laguna.

- 2081 MC Rombach ← HC Evans (185-87) ← MJ Coch. [Homoptera: Cicadellidae] on mango. Dec 85. Philippines: Tuguegarao, Cagayan.
 - 2082 [IMI 300150] MC Rombach ← HC Evans (185-12). *Cofana spectra* [Homoptera: Cicadellidae] on rice. Mar 85. Indonesia: Kotamobagu, Sulawesi Utara, Celebes.
 - 2176 MC Rombach (130586-17). *Nephotettix virescens* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.
 - 2177 MC Rombach (130586-18). *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.
 - 2178 MC Rombach (130586-19). *Nephotettix virescens* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.
 - 2179 MC Rombach (130586-20). *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 13 May 86. Philippines: nr. Baybay, Leyte.
- Metarhizium anisopliae* (Metschnikoff) Sorokin
[Hyphomycetes]
- These strains have not been reconfirmed to belong to *Metarhizium anisopliae* var. *anisopliae*, the small-spored variety of this species. Strains listed here are very unlikely to be more properly assigned to *M. anisopliae* var. *majus*, the large-spored variety of this species. There may be considerable variation among strains in fundamental characters such as color, and relative production of mycelium and conidia.
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- 23 RS Soper (F84-1-1) ← RL Rabb. *Conoderus* sp. [Coleoptera: Elateridae]. 1961. USA: North Carolina.
 - 324 [CSIRO FI48] RS Soper ← R Teakle (M-100). *Austracris guttulosa* [Orthoptera: Acrididae]. Feb 79. Australia: Queensland.
 - 346 [CSIRO FI24] *Aphodius tasmaniae* [Coleoptera: Scarabaeidae]. Australia: Adelaide, South Australia.
 - 435 [CSIRO FI53] SJ Gagen (1). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Warnambool, Victoria.
 - 436 SJ Gagen (2). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Hexham, Victoria.
 - 437 SJ Gagen (3). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia.
 - 438 [CSIRO FI54] SJ Gagen (4). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia.
 - 439 SJ Gagen (5). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Byaduck, Victoria.
 - 440 SJ Gagen (6). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Warnambool, Victoria.
 - 441 SJ Gagen (7). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Warnambool, Victoria.
 - 442 SJ Gagen (8). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Hawkesdale, Victoria.
 - 443 SJ Gagen (9). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Camperdown, Victoria.
 - 444 SJ Gagen (10). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Byaduck, Victoria.
 - 445 SJ Gagen (11). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Carapook, Victoria.
 - 446 SJ Gagen (12). *Teleogryllus commodus* [Orthoptera: Gryllidae]. Rec'd 11 Mar 80. Australia: Mortlake, Victoria.
 - 455 [QEC 410.0] RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 456 [QEC 411.0] RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 457 [QEC 412.0] RS Soper. *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 472 [CSIRO FI55; DAR 29768] J Walker ← A Wescott. [Coleoptera: Scarabaeidae]. Sep 77. Australia: BCRI, R.D. 66, Rydalmere, New South Wales.
 - 485 [QEC 413.0] RS Soper (NT-21). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 486 [QEC 414.0] RS Soper (NT-25). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 487 [QEC 415.0] RS Soper (NT-20). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 488 [QEC 416.0] RS Soper (NT-24). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 489 [QEC 417.0] RS Soper (NT-22). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
 - 543 DW Roberts (81280). *Recilia dorsalis* [Homoptera: Cicadellidae]. 12 Aug 80. Philippines: greenhouse, IRRI, Los Baños, Manila.
 - 549 [QEC 418.0] DW Roberts. Metabiol. Nov 80. Brazil.
 - 550 [QEC 419.0] DW Roberts. Metabiol. Nov 80. Brazil.
 - 551 [QEC 420.0] DW Roberts. Metabiol. Nov 80. Brazil.
 - 552 DW Roberts ← MA Naves. *Galactica* sp. [Lepidoptera]. Nov 80. Brazil: Brasília, Federal District.
 - 576 [QEC 427.0] RS Soper (8133-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: insect rearings, Maros Research Center, Maros, Sulawesi Selatan, Celebes.

- 587 JM Lenné (C7). *Mocis* sp. [Lepidoptera: Noctuidae]. Rec'd 13 Apr 81. Colombia: Carimagua.
- 588 [QEC 431.0] JM Lenné (E1). Soil. Rec'd 13 Apr 81. Colombia: Espinal, Tolima.
- 589 [QEC 432.0] JM Lenné (P1). Soil. Rec'd 13 Apr 81. Colombia: Popayán, Cauca.
- 683 [QEC 433.0] DW Roberts (102381-9). Larva, [Coleoptera: Scarabaeidae] in sugar cane. 23 Oct 81. PR China: Guanzhou, Kwon Tung.
- 703 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 81. PR China: Hangzhou, Zhijiang.
- 712 DW Roberts. 7 May 81. PR China.
- 724 [CNPAF 82-2-15-04; CP 25] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 725 [CNPAF 82-1-6-02; CP 8] RA Daoust. *Chalcodermus aeneus* [Coleoptera: Curculionidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 727 [CNPAF 82-2-2-01; CP 21] RA Daoust ← Y Tanaka. [Orthoptera: Tettigoniidae]. 2 Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 728 [CNPAF 82-2-3-02; CP 22] RA Daoust. [Orthoptera]. 3 Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 729 [CNPAF 82-2-15-02; CP 24] RA Daoust. *Deois flavopicta* [Homoptera: Cercopidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 755 [CNPAF 82-4-5-01; CP 39] RA Daoust ← J da Silva Carneiro. [Hemiptera: Pentatomidae]. 5 Apr 82. Brazil: UEPAE/Manaus, Manaus, Amazonas.
- 759 [CNPAF 82-4-1-01; CP 37] RA Daoust. *Deois flavopicta* [Homoptera: Cercopidae]. 1 Apr 82. Brazil: CNPAF, Goiânia, Goiás.
- 760 [CNPAF 82-2-15-03; CP 31] RA Daoust. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 782 [CNPAF 82-5-4-01; CP 52] RA Daoust ← SM dos Santos. *Deois flavopicta* [Homoptera: Cercopidae]. 4 May 82. Brazil: CNPAF, Goiânia, Goiás.
- 794 GA Kuter (300). Leaf litter under sugar maple. 1975. USA: Abraham's Woods, University of Wisconsin Arboretum, Green County, Wisconsin.
- 797 DA Rodriguez Sierra. Larva, *Ancognatha scarabaeoides* [Coleoptera: Scarabaeidae]. Jun 81. Colombia: Madrid, Cundinamarca.
- 798 DA Rodriguez Sierra. Nymph, *Aenolamia varia* [Homoptera: Cercopidae]. 1979. Colombia: Villavicencio, Meta.
- 808 [CNPAF 82-7-23-01; CP 62] RA Daoust ← SM dos Santos. *Coleomegilla maculata* [Coleoptera: Coccinellidae]. 23 Jul 82. Brazil: CNPAF, Goiânia, Goiás.
- 817 GG Soares (17). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.
- 818 GG Soares (19). 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. 5 Mar 82. France: Plougastel-Daoulas.
- 819 GG Soares (21) ← JP Aeschlimann. 5th instar larva, *Sitona discoideus* [Coleoptera: Curculionidae]. 29 Mar 82. France: Montpellier, Hérault.
- 820 GG Soares (A7) ← M Marchal. 6th instar larva, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Jan 82. France: Angers, Maine-et-Loire.
- 844 DW Roberts ← B Schaerffenberg (Ma16). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 845 DW Roberts ← B Schaerffenberg (Ma13). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 846 DW Roberts ← B Schaerffenberg (Ma18). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 847 DW Roberts ← B Schaerffenberg (Ma1). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 848 DW Roberts ← B Schaerffenberg (Ma17). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 849 DW Roberts ← B Schaerffenberg (Ma8). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 850 DW Roberts ← B Schaerffenberg (Ma15). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 851 DW Roberts ← B Schaerffenberg (Ma10). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 852 DW Roberts ← B Schaerffenberg (Ma6). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 853 DW Roberts ← B Schaerffenberg (Ma11). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 854 DW Roberts ← B Schaerffenberg (Ma14). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 855 DW Roberts ← B Schaerffenberg (Ma5). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 856 DW Roberts ← B Schaerffenberg (Ma12). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 857 DW Roberts ← B Schaerffenberg (Ma9). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 858 DW Roberts ← B Schaerffenberg (Ma19). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 859 DW Roberts ← B Schaerffenberg (Ma4). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 860 DW Roberts ← B Schaerffenberg (Ma7). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 861 DW Roberts ← B Schaerffenberg (Ma20). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 862 DW Roberts ← B Schaerffenberg (Ma2). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 863 DW Roberts ← B Schaerffenberg (Ma3). Single spore isolation. Rec'd Spring 83. Lab. manipulation.
- 864 DW Roberts (Ma Teetor S2 SS#19) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.

- 865 DW Roberts (Ma Teetor S2 SS#20) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.
- 866 DW Roberts (Ma Teetor S2 SS#22) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.
- 867 DW Roberts (Ma Teetor S2 SS#18) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.
- 868 DW Roberts (Ma Teetor S2 SS#16) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.
- 869 DW Roberts (Ma Teetor S2 SS#17) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.
- 870 DW Roberts (Ma Teetor S2 SS#15) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.
- 871 DW Roberts (Ma Teetor S2 SS#21) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Rec'd May 83. Lab. manipulation.
- 872 [ARSEF 888 (deaccessioned); QEC 408.0] DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.
- 873 DW Roberts (Ma Teetor S2 SS#4) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.
- 874 DW Roberts (Ma Teetor S2 SS#2) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.
- 875 DW Roberts (Ma Teetor S2 SS#1) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd 7 Jun 83. Lab. manipulation.
- 889 DW Roberts (Ma Teetor S2 SS#9) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 890 DW Roberts (Ma Teetor S2 SS#8) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 891 DW Roberts (Ma Teetor S2 SS#7) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 892 DW Roberts (Ma Teetor S2 SS#6) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 893 DW Roberts (Ma Teetor S2 SS#3) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 894 DW Roberts (Ma Teetor S2 SS#14) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 895 DW Roberts (Ma Teetor S2 SS#13) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 896 DW Roberts (Ma Teetor S2 SS#12) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 897 DW Roberts (Ma Teetor S2 SS#11) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 898 DW Roberts (Ma Teetor S2 SS#10) ← G Teetor-Barsch. Single spore reisolate of ARSEF 23 passed through an insect. Acc'd Jun 83. Lab. manipulation.
- 901 DW Roberts (VSS#6). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.
- 902 DW Roberts (VSS#5). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.
- 903 DW Roberts (VSS#4). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.
- 904 DW Roberts (VSS#3). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.
- 905 DW Roberts (VSS#2). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.
- 906 DW Roberts (VSS#1). Single spore isolation. Acc'd 24 Jun 83. Lab. manipulation.
- 907 [QEC 421.0] K Al-Aidroos (DIII 3B Bes 48 (recombinant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 25 Jun 83. Lab. manipulation.
- 908 K Al-Aidroos (S7N5 (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.
- 909 [QEC 408.1] K Al-Aidroos (5.173 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.
- 910 [QEC 423.0] K Al-Aidroos (D95A Bes 140 (recombinant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.
- 911 [QEC 424.0] K Al-Aidroos (19-1a5 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 8 Jul 83. Lab. manipulation.
- 912 [QEC 425.0] K Al-Aidroos (D198A) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.
- 913 [QEC 426.0] K Al-Aidroos (D95A (diploid, recombinant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.
- 921 [QEC 422.1] K Al-Aidroos (42.2a9 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.

- 922 K Al-Aidroos (5.281 (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 22 Jul 83. Lab. manipulation.
- 929 [CNPAF 82-12-15-01; CP 67] RA Daoust ← SM dos Santos. Larva, *Chalcodermus aeneus* [Coleoptera: Curculionidae]. Dec 82. Brazil: CNPAF, Goiânia, Goiás.
- 932 [CNPAF 82-12-20-02; CP 70] RA Daoust. [Coleoptera: Bruchidae]. 20 Dec 82. Brazil: CNPAF, Goiânia, Goiás.
- 939 [CNPAF 83-3-3-03; CP 78] RA Daoust ← SM dos Santos. [Coleoptera: Carabidae]. 3 Mar 83. Brazil: CNPAF, Goiânia, Goiás.
- 954 [CNPAF 83-03-16L; CP 99] RA Daoust and BP Magalhães. [Coleoptera: Bruchidae]. 16 Mar 83. Brazil: Ponta Porã, Mato Grosso.
- 955 [CNPAF 83-4-27; CP 100] RA Daoust ← SM dos Santos. *Deois flavopicta* [Homoptera: Cercopidae]. 27 Apr 83. Brazil: CNPAF, Goiânia, Goiás.
- 960 K Al-Aidroos (DIII 3B (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 26 Aug 83. Lab. manipulation.
- 965 K Al-Aidroos (5.378 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.
- 966 K Al-Aidroos (19.1 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.
- 967 K Al-Aidroos (5.287 (EMS mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.
- 968 K Al-Aidroos (DIII 3A (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 17 Oct 83. Lab. manipulation.
- 977 [GCRI 134-82] RA Hall ← A Vey. *Melolontha melolontha* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 83. France.
- 1009 J Aoki (Met. 5) ← K Kojo. *Ornebius kanetataki* [Orthoptera: Gryllidae]. Jul 76. Japan: Fuchu, Tokyo Prefecture.
- 1011 J Aoki (Met. 8). Soil. Aug 82. Japan: Fuchu, Tokyo Prefecture.
- 1022 K Al-Aidroos (5.304 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.
- 1023 K Al-Aidroos (JX1.23C (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.
- 1024 K Al-Aidroos (JX1.23A (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.
- 1025 K Al-Aidroos (42.2 (EMS mutant of 5.42)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 12 Dec 83. Lab. manipulation.
- 1044 [EPABA E-6(ESMC)] DW Roberts ← J Ventura. *Deois flavopicta* [Homoptera: Cercopidae]. Acc'd 13 Jan 84. Brazil: Espírito Santo.
- 1045 [ARSEF 1299; EPABA A-24] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Aug 78. Brazil: Bahia.
- 1046 J Aoki (Met. 6) ← K Yanase. *Popillia japonica* [Coleoptera: Scarabaeidae]. Jul 77. Japan: Fuchu, Tokyo Prefecture.
- 1055 [CNPS 19] F Moscardi. *Nezara viridula* [Hemiptera: Pentatomidae]. 1983. Brazil: Londrina, Paraná.
- 1056 [CNPS 25] F Moscardi. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 1983. Brazil: Londrina, Paraná.
- 1057 [CNPS 30A] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.
- 1059 [CNPS 39C] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.
- 1066 [ARSEF ?397] TJ Poprawski ← S Keller (92). Adult, *Melolontha melolontha* [Coleoptera: Scarabaeidae]. 29 May 81. Switzerland: Iselisberg.
- 1080 LA Lacey. *Heliothis zea* [Lepidoptera: Noctuidae]. Fall 83. USA: Gainesville, Florida.
- 1083 K Al-Aidroos (5A.11 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1084 K Al-Aidroos (5A.7 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1085 K Al-Aidroos (5A.1 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1086 K Al-Aidroos (5A.10 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1087 K Al-Aidroos (5A (UV irradiated mutant of 5)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.

- 1088 K Al-Aidroos (5A.12 (EMS mutant of 5A)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1089 K Al-Aidroos (JXIV.245 (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1090 K Al-Aidroos (KIIVA (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1091 K Al-Aidroos (JIIXIV (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1094 DW Roberts ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). [Lepidoptera]. Acc'd 16 Feb 84. Lab. manipulation.
- 1095 DW Roberts ← S Keller (Ma 43). *Carpocapsa pomonella* [Lepidoptera: Olethreutidae]. Acc'd 16 Feb 84. Austria.
- 1097 K Al-Aidroos (JIVD (mutant)) ← DW Roberts (Ma Teetor S2 SS#5) ← G Teetor-Barsch (F84-1-1) ← ARSEF (23). Single spore isolation. Acc'd 16 Feb 84. Lab. manipulation.
- 1112 KV Deseo (32B) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 82. Italy: Modena, Emilia-Romagna.
- 1116 KV Deseo (40B) ← Celli. Pupa, *Leucoptera scitella* [Lepidoptera: Lyonetiidae]. Aug 82. Italy: Ravenna, Emilia-Romagna.
- 1120 KV Deseo (72). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. Oct 82. Italy: Modena, Emilia-Romagna.
- 1187 [INRA Ma-23] TJ Poprawski ← GCN Latch. *Oxycanus* sp. [Lepidoptera: Hepialidae]. 20 Jan 66. New Zealand: Palmerston North, North Island.
- 1278 IMI (170289) ← GL Barron. Soil. 1973. Canada.
- 1280 DW Roberts (single spore isolate #1) or (MaT3JB-C). *Popillia japonica* [Coleoptera: Scarabaeidae]. 1978. USA: Clinton Corners, New York.
- 1281 DW Roberts. Chemical mutant of Roberts #F84 ← ARSEF 23. Acc'd 3 May 84. Lab. manipulation.
- 1282 K El-kadi (CEPLAC-ICI). [Homoptera: Cercopidae]. Acc'd 3 May 84. Brazil: Bahia.
- 1284 [QEC 434.0] DW Roberts (BPH-12). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1285 [QEC 435.0] DW Roberts (BPH-13). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1286 [QEC 436.0] DW Roberts (BPH-4). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1290 [QEC 437.0] DW Roberts (BPH-11). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1298 DW Roberts (single spore isolate #9) or (MaT3JB-B). *Popillia japonica* [Coleoptera: Scarabaeidae]. Feb 78. USA: Clinton Corners, New York.
- 1299 [ARSEF 1045; EPABA A-24] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Aug 78. Brazil: Bahia.
- 1300 [QEC 438.0] DW Roberts (VIII). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Plot, IRRI, Los Baños, Manila.
- 1304 [QEC 439.0] DW Roberts (D). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1373 S Keller (44). Acc'd 21 Jun 84. Switzerland.
- 1374 S Keller (45). Acc'd 21 Jun 84. Switzerland.
- 1375 S Keller (46). Acc'd 21 Jun 84. Switzerland.
- 1376 S Keller (47). Acc'd 21 Jun 84. Switzerland.
- 1377 [ARSEF ?396] S Keller (48). *Agriotes sputator* [Coleoptera: Elateridae]. 4 May 77. Switzerland.
- 1378 Acc'd 26 Jun 84.
- 1379 [EPABA A-12] DW Roberts ← E Matta. [Homoptera: Cercopidae]. 22 Aug 78. Brazil: Bahia.
- 1380 Acc'd 26 Jun 84.
- 1382 [EPABA A-10] DW Roberts ← E Matta. [Homoptera: Cercopidae]. 22 Aug 78. Brazil: Bahia.
- 1386 Acc'd 5 Jul 84.
- 1387 Acc'd 5 Jul 84.
- 1388 Acc'd 5 Jul 84.
- 1432 MC Rombach (B). *Scotinophara coarctata* [Hemiptera: Pentatomidae]. 14 Apr 84. Philippines: Maasin, Palawan.
- 1435 MC Rombach (II.1). *Scotinophara coarctata* [Hemiptera: Pentatomidae]. 14 Apr 84. Philippines: Maasin, Palawan.
- 1489 [INRA Ma-139] GG Soares ← G Riba. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Acc'd 21 Aug 84. France.
- 1490 [INRA Ma-127] GG Soares ← P Ferron ← DW Roberts. Acc'd 21 Aug 84.
- 1545 MC Rombach (Ma Pal.II). Adult, *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. Jun 84. Philippines: Brooke's Point region, Palawan.
- 1548 MC Rombach (Ma Pal.I). Adult, *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. May 84. Philippines: nr. PNAC Station, Arbor Lan, Palawan.
- 1724 DW Roberts (29103) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.

- 1725 DW Roberts (291017) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1726 DW Roberts (291013) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1727 DW Roberts (291015) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1728 DW Roberts (291001) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1729 DW Roberts (2910B) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1744 DW Roberts (291014) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1745 DW Roberts (291016) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Paddy Breeding Station, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1823 DW Roberts (29103b) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 29 Oct 84. India: greenhouse, Tamil Nadu Ag. Univ., Coimbatore, Tamil Nadu.
- 1878 DW Roberts (MaT3JB-A). *Popillia japonica* [Coleoptera: Scarabaeidae]. 1978. USA: Clinton Corners, New York.
- 1890 DW Roberts ← RA Daoust (ZcG3). [Homoptera: Cercopidae]. Jan 80. Brazil: Pará.
- 1891 DW Roberts ← MA Naves (460(88)). [Homoptera: Cercopidae]. Jan 80. Brazil: Pará.
- 1892 DW Roberts ← RA Daoust (Eq-ESMC-CsI). *Deois flavopicta* [Homoptera: Cercopidae] isolate (Daoust #E-9) passed through *Culex quinquefasciatus* [Diptera: Culicidae]. Acc'd 6 Jun 85. Lab. manipulation.
- 1895 DW Roberts ← RA Daoust (ZcG1). [Homoptera: Cercopidae]. Jan 80. Brazil: Pará.
- 1896 [EPABA A-8(BAMC)] DW Roberts ← E Matta. *Mahanarva posticata* [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil: Salvador, Bahia.
- 1897 DW Roberts (V-14 (F84 mutant)). *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 11 Jun 85. USA: California.
- 1898 [EPABA A-18 (BAMC)] DW Roberts ← E Matta. *Mahanarva posticata* [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil: Salvador, Bahia.
- 1899 [EPABA A-23] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil.
- 1900 [EPABA A-19 (BAMC)] DW Roberts ← E Matta. *Deois flavopicta* [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil: Salvador, Bahia.
- 1901 DW Roberts ← MA Naves (CG-6). [Coleoptera: Carabidae]. Jan 80. Brazil: Pará.
- 1902 DW Roberts ← RA Daoust (ZcG4). [Homoptera: Cercopidae]. Jan 80. Brazil.
- 1903 DW Roberts (103a). *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 11 Jun 85. USA.
- 1910 DW Roberts ← S Keller (Ma52(S4)). *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Acc'd 18 Jun 85. Germany.
- 1911 [EPABA A-2] DW Roberts ← E Matta. [Homoptera: Cercopidae]. Rec'd Aug 78. Brazil.
- 1912 [EPABA 1141(29v)] DW Roberts. [Homoptera: Cercopidae]. Rec'd Aug 78. Mexico.
- 2038 MC Rombach (161085-35) ← SB Ahn (D2-4). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 16 Oct 85. Korea.
- 2039 MC Rombach (161085-36) ← SB Ahn (E2-13). *Nilaparvata lugens* [Homoptera: Delphacidae] on rice. 16 Oct 85. Korea.
- 2042 [IMI 113863] MC Rombach ← GL Barron (10277). Peat soil in cedar bog. 1960. Canada: Guelph, Ontario.
- 2043 MC Rombach (061185-1). *Nephotettix cincticeps* [Homoptera: Cicadellidae]. 6 Nov 85. Philippines: IRRI field, Los Baños, Manila.
- 2076 [CP 194] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.
- 2077 [CP 195] JC Lord and BP Magalhães. *Cerotoma arcuata* [Coleoptera: Chrysomelidae]. 1985. Brazil: CNPAF, Goiânia, Goiás.
- 2107 [CBS 316.51; IMI 14746; NRRL 1944; QM 191] MC Rombach ← KB Raper and LP Rockwood. Larva, *Agriotes* sp. [Coleoptera: Elateridae]. 1947. USA: Forest Grove, Oregon.
- 2153 MC Rombach (200386-2). *Nephotettix virescens* [Homoptera: Cicadellidae]. 20 Mar 86. Indonesia: Maros Research Institute, Maros, Sulawesi Selatan, Celebes.
- 2211 [CNPAF 86-06-02-3; CP 207] DW Roberts ← JFS Martins. Soil. 2 Jun 86. Brazil: Campinas, São Paulo.
- 2212 [CNPAF 86-06-05-9; CP 208] DW Roberts ← PMOJ Neves. *Tibraca limbativentres* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2213 [CNPAF 86-06-05-8; CP 209] DW Roberts ← O Sales. *Tibraca limbativentres* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

- 2214 [CNPAF 86-06-05-7; CP 210] DW Roberts ← JFS Martins. *Tibraca limbativentres* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2341 [ARSEF 2381 (never frozen), 2383 (never frozen)] MC Rombach (120286-2). *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. 12 Feb 86. Philippines: Palawan.
- 2342 [ARSEF 2384 (never frozen)] MC Rombach (120286-3). *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. 12 Feb 86. Philippines: Palawan.
- 2343 [ARSEF 2385 (never frozen)] MC Rombach (120286-4). *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. 12 Feb 86. Philippines: Palawan.
- 2353 [ARSEF 2382 (never frozen)] MC Rombach (201286-4). [Homoptera: Cicadellidae]. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2421 DG Holdom (050187-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Jan 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2510 [CP 218] SM dos Santos. *Formica atta* [Hymenoptera: Formicidae]. 29 Apr 87. Brazil: CNPAF, Goiânia, Goiás.
- 2513 [CP 236A] SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Oct 86. Brazil: CNPAF, Goiânia, Goiás.
- 2517 [CP 226] F Moscardi. *Deois flavopicta* [Homoptera: Cercopidae]. Acc'd 8 Dec 87. Brazil: Joquapita.
- 2518 [CP 224] *Conoderus* sp. [Coleoptera: Elateridae]. Acc'd 8 Dec 87. New Zealand.
- 2521 [CP 225] F Moscardi. *Deois* sp. [Homoptera: Cercopidae]. 1983. Brazil: CNPS, Londrina, Paraná.
- 2547 SV Krueger ← FL Consolie and MG Villani. *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Oct 87. USA: Syracuse, New York.
- 2548 SV Krueger ← FL Consolie and MG Villani. *Popillia japonica* [Coleoptera: Scarabaeidae]. Oct 87. USA: Sleepy Hollow, New York.
- 2560 [CP 232] SB Alves (SPL-54A). *Atta sexdens rubropilosa* [Hymenoptera: Formicidae]. Acc'd 13 Apr 88. Brazil: Piracicaba, São Paulo.
- 2561 [CP 233] SB Alves (507). *Solenopsis* sp. [Hymenoptera: Formicidae]. Acc'd Apr 88. Brazil: Piracicaba, São Paulo.
- 2574 Acc'd 11 Jul 88.
- 2575 [IMI I91-613] RJ St. Leger (ME-1) ← Tate and Lyle Ltd (Batch No. B1830). *Curculio caryae* [Coleoptera: Curculionidae]. Acc'd 21 Jul 88. USA: South Carolina.
- 2602 MS Goettel (T1) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 11 Oct 88. Lab. manipulation.
- 2603 MS Goettel (T3) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 11 Oct 88. Lab. manipulation.
- 2604 MS Goettel (T4) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 11 Oct 88. Lab. manipulation.
- 2605 MS Goettel (T5) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.
- 2606 MS Goettel (T6) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.
- 2607 MS Goettel (T7) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.
- 2608 MS Goettel (T8) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.
- 2609 MS Goettel (T9) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.
- 2610 MS Goettel (T10) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 12 Oct 88. Lab. manipulation.
- 2611 MS Goettel (T2) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 17 Oct 88. Lab. manipulation.
- 2612 MS Goettel (T11) and RJ St. Leger. Transgenic mutant of ARSEF 2575, benomyl resistant. Acc'd 17 Oct 88. Lab. manipulation.
- 2627 [CNPAF PI-43; CP 242] DW Roberts ← Planalsucar. *Mahanarva posticata* [Homoptera: Cercopidae]. 23 May 88. Brazil: Usina Pedrosa, Pernambuco.
- 2628 [CNPAF PI-88; CP 243] DW Roberts ← Planalsucar. 23 May 88. Brazil: Carpina, Pernambuco.
- 2634 [CNPAF D4; CP 251] DW Roberts ← Dep. Genetica da ISALQ. Mutant of E9 ESMC parent. Rec'd 23 Nov 88. Brazil: Piracicaba, São Paulo.
- 2635 [CNPAF 88-5-6B; CP 253] DW Roberts ← E Dias Quintela. *Ceratomyxa arcuata* [Coleoptera: Chrysomelidae]. 6 May 88. Brazil: CNPAF, Goiânia, Goiás.
- 2735 GW Riethmacher (Ma1). *Spodoptera* sp. [Lepidoptera: Noctuidae]. 29 Dec 88. Philippines: La Trinidad, Benguet.
- 2741 GW Riethmacher (T11). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 18 Dec 88. Philippines: La Trinidad, Benguet.
- 2764 SR Sánchez Peña (1). Dermaptera isolate passed through *Pogonomyrmex* sp. [Hymenoptera: Formicidae]. 22 Apr 87. Mexico: Tecmán, Colima.
- 2786 RA Humber ← II Kirijak. [Orthoptera: Gryllotalpidae]. Jul 89. Commonwealth of Independent States: Kishinev, Moldova.
- 2805 GW Riethmacher (B13m). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 11 Apr 89. Philippines: Atok, Benguet.
- 2806 GW Riethmacher (B14m). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 4 May 89. Philippines: Atok, Benguet.

- 2808 GW Riethmacher (B16m). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 22 May 89. Philippines: Atimonan, Quezon.
- 2809 GW Riethmacher (B17b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 5 Jun 89. Philippines: La Trinidad, Benguet.
- 2941 [CP 272] SP Wraight ← DR Sosa Gomez. *Ceratomyxa arcuata* [Coleoptera: Chrysomelidae]. 8 Nov 88. Brazil: CNPAF, Goiânia, Goiás.
- 2949 [CP 277] SP Wraight ← CA da Silva, EC de Moura, GS de Sá and SM dos Santos. [Isoptera]. 19 Jan 89. Brazil: CNPAF, Goiânia, Goiás.
- 2951 [CP 285] SP Wraight ← C Czepak. [Isoptera]. 9 Nov 89. Brazil: CNPAF, Goiânia, Goiás.
- 2981 T Searle (CWMA). Larva, *Listronotus oregonensis* [Coleoptera: Curculionidae]. 1988. Canada: Saint-Jean, Québec.
- 2982 T Searle (PAMA). External parasite on *Phyllophaga anxia* [Coleoptera: Scarabaeidae] larva. 1987. Canada: Québec.
- 3043 WE Jones (FLS). Soil from lettuce crop. Mar 90. USA: Hawaii, Hawaii.
- 3044 WE Jones (WSP). Soil from sweet potato crop. Mar 90. USA: Oahu, Hawaii.
- 3045 WE Jones (FST). *Coptotermes formosanus* [Isoptera: Rhinotermitidae]. May 90. USA: Oahu, Hawaii.
- 3056 [MAF F11] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: Canterbury Plains, South Island.
- 3057 [MAF F12] T Glare. *Costelytra zealandica* [Coleoptera: Scarabaeidae]. Rec'd Oct 90. New Zealand: South Island.
- 3064 [MAF F25] T Glare. Larva, [Lepidoptera: Crambidae]. Rec'd Oct 90. New Zealand: Christchurch, South Island.
- 3388 I Majchrowicz (3a). *Tribolium castaneum* [Coleoptera: Tenebrionidae] on asparagus. 16 Jul 91. USA: Orchard Farm, Yakima, Washington.
- 3389 I Majchrowicz (T-11-4). *Tribolium castaneum* [Coleoptera: Tenebrionidae] on apple. 16 Jul 91. USA: Seto Farm, Granger, Washington.
- 3540 M Brownbridge (B-2). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 29 Nov 91. USA: oak stand, Leddy Park, Chittenden County, Vermont.
- 3541 M Brownbridge (B-5). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 27 Nov 91. USA: Motyka's sugar maple stand, Orange County, Vermont.
- 3542 M Brownbridge (B-18). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 27 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3544 M Brownbridge (B-35). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 19 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3565 M Brownbridge (B-36). Rec'd 10 Jan 92.
- 3603 IMI (152222) ← Deshpande. *Myloccerus discolor* [Coleoptera: Curculionidae]. Rec'd 26 Feb 92. India: Mudigere.
- 3604 IMI (298059). *Scapanes australis* [Coleoptera: Scarabaeidae]. Rec'd 26 Feb 92. Papua New Guinea.
- 3605 IMI (190-574). *Acrotylus* sp. Rec'd 26 Feb 92. Pakistan.
- 3608 [ARSEF 2575] IMI (191-613) ← RJ St. Leger (ME-1) ← Tate and Lyle Ltd (Batch No. B1830). *Curculio caryae* [Coleoptera: Curculionidae]. Rec'd 26 Feb 92. USA.
- 3609 IMI (191-614). *Patanga succincta*. Rec'd 26 Feb 92. Thailand.
- 3610 IMI (191-625). *Pseudosphingonotus savignyi*. Rec'd 26 Feb 92. Oman.
- 3611 IMI (191-633). [Orthoptera: Gryllidae]. Rec'd 26 Feb 92. Oman.
- 3619 IMI (191-676). *Oxya multidentata*. Rec'd 26 Feb 92. Pakistan.
- 3621 IMI (299982). *Aenolamia varia* [Homoptera: Cercopidae]. Rec'd 26 Feb 92. Trinidad and Tobago.
- 3713 RA LeBrun ← J Hanula (C-5). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 3 Jun 91. USA: Clinton, Connecticut.
- 3720 RA LeBrun ← J Hanula. Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 20 May 91. USA: Windsor, Connecticut.
- 3721 RA LeBrun ← J Hanula. Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 3 Jun 91. USA: Clinton, Connecticut.

Metarhizium anisopliae var. *anisopliae* (Metschnikoff) Sorokin
 [Hyphomycetes]

- 538 DW Roberts. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. 20 Aug 80. Thailand.
- 925 [ATCC 60335; EPABA E-9(ESMC); QEC 409.0] DW Roberts ← J Ventura. *Deois flavopicta* [Homoptera: Cercopidae]. 22 Aug 78. Brazil: Espírito Santo.
- 1448 [CNPAF 83-12-27; CP 122] E Ferreira. *Scaptocoris castanea* [Hemiptera: Cydnidae]. 27 Dec 83. Brazil: Goiátuba, Goiás.
- 1449 [CNPAF 84-1-26; CP 123] BP Magalhães. *Deois incompleta* [Homoptera: Cercopidae]. 26 Jan 84. Brazil: Altamira, Pará.
- 1882 [CP 171] DW Roberts ← C Czepak. *Tibraca limbativentres* [Hemiptera: Pentatomidae]. 3 Jan 85. Brazil: CNPAF, Goiânia, Goiás.
- 1883 [CP 172] DW Roberts ← JFS Martins. *Tibraca limbativentres* [Hemiptera: Pentatomidae]. 11 Jan 85. Brazil: CNPAF, Goiânia, Goiás.
- 1885 [CP 174] DW Roberts ← SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. 23 Apr 85. Brazil: CNPAF, Goiânia, Goiás.

- 1894 [ATCC 60336; EPABA A-4] DW Roberts ← E Matta. *Mahanarva posticata* [Homoptera: Cercopidae]. Acc'd 11 Jun 85. Brazil: Salvador, Bahia.
- 1952 [CNPAF 85-7-21; CP 177] SM dos Santos. ?*Cirtone-mus* sp. [Hemiptera: Cydnidae]. 27 Jul 85. Brazil: Goiânia, Goiás.
- 1958 [CNPAF 85-7-24-1; CP 184] JC Lord and BP Magalhães. *Diabrotica speciosa* [Coleoptera: Chrysomelidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.
- 1968 DR Smitley. *Strigoderma arboricola* [Coleoptera: Scarabaeidae]. Aug 85. USA: East Lansing, Michigan.
- 1970 [CNPAF 82-12-01; CP 170] C Czepak. *Deois flavopicta* [Homoptera: Cercopidae]. 1 Dec 84. Brazil: CNPAF, Goiânia, Goiás.
- 1989 [ARSEF 1452 (deaccessioned); CNPAF 53; CP 126] F Moscardi. *Sternechus subsignatus* [Coleoptera: Curculionidae]. 27 Mar 84. Brazil: Soybean Center, Londrina, Paraná.
- 2080 DG Holdom ← H Soeharto. *Nilaparvata lugens* [Homoptera: Delphacidae]. 1985. Indonesia: Sukamundi, Jawa Barat, Java.
- 2105 DG Holdom (130286-3). ?*Hydrellia* sp. [Diptera: Ephydriidae]. 13 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2106 DG Holdom (100286-3). *Nephotettix virescens* [Homoptera: Cicadellidae]. 10 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2134 T Searle (E). *Phyllophaga ?anzia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.
- 2135 T Searle (F). *Phyllophaga ?anzia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.
- 2136 T Searle (K). *Phyllophaga ?anzia* [Coleoptera: Scarabaeidae]. Jul 85. Canada.
- 2137 T Searle (Q). *Phyllophaga ?anzia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.
- 2138 T Searle (W). *Phyllophaga ?anzia* [Coleoptera: Scarabaeidae]. Jul 85. Canada: Southern Québec.
- 2139 T Searle (Z). *Phyllophaga ?anzia* [Coleoptera: Scarabaeidae]. Aug 85. Canada: Southern Québec.
- 2140 T Searle (N). Larva, [Lepidoptera: Noctuidae]. Jul 85. Canada: Southern Québec.
- 2156 BN Muthappa (PNG 12711). Adult, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.
- 2162 BN Muthappa (PNG 12721). Larva, [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.
- 2163 BN Muthappa (PNG 12722). Larva, [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.
- 2165 BN Muthappa (PNG 12724). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.
- 2166 BN Muthappa (PNG 12726). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.
- 2167 BN Muthappa (PNG 12727). Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Rec'd 12 May 86. Papua New Guinea.
- 2223 KJ Marshall. *Brontispa longissima* from artificial production. Jun 86. Western Samoa: Vaoala, Apia.
- 2230 MC Rombach (220786-1). 22 Jul 86.
- 2231 K Narayanan (7). *Zygogramma bicolorata* [Coleoptera: Chrysomelidae]. Rec'd 27 Aug 86. India.
- 2424 DG Holdom (080287-1). Larva, [Lepidoptera]. 8 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2469 JK Liebherr. Larva, [Coleoptera: Carabidae]. 24 Aug 87. Mexico: 10.5 km S of Amecameca, Tepetlixpa, Mexico.
- 2514 [CP 236B] SM dos Santos. *Diabrotica* sp. [Coleoptera: Chrysomelidae]. Oct 86. Brazil: CNPAF, Goiânia, Goiás.
- 2742 GW Riethmacher (B4T8). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 6 Feb 89. Philippines: Atok, Benguet.
- 2974 C López Lastra. Adult, *Aedes crinifer* [Diptera: Culicidae]. 30 Nov 88. Argentina: Los Talas, Berisso, Buenos Aires.
- 3108 SV Krueger (MaEC1). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3127 [IMI 168777ii] C Prior ← M Tulloch. *Schistocerca gregaria* [Orthoptera: Acrididae]. 1974. Lab. manipulation.
- 3146 INRA (Ma-70). *Anagyrus* sp. [Hymenoptera: Encyrtidae]. Aug 72. Mexico.
- 3147 INRA (Ma-152) ← G Riba. [Homoptera: Cercopidae]. Dec 81. Brazil.
- 3148 INRA (Ma-181) ← A Caudal. *Haphochelus marginalis* [Coleoptera]. May 83. France: Réunion.
- 3180 GW Riethmacher (B34). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 1 Mar 90. Philippines: Louisiana, Laguna.
- 3187 GW Riethmacher (B43a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 3 May 90. Philippines: La Trinidad, Benguet.
- 3190 GW Riethmacher (B44a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 17 May 90. Philippines: La Trinidad, Benguet.
- 3193 GW Riethmacher (B45b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 28 May 90. Philippines: Villasis, Pangasinan.
- 3194 GW Riethmacher (B47a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 6 Jun 90. Philippines: Villasis, Pangasinan.

- 3196 GW Riethmacher (B48). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 13 Jun 90. Philippines: Baguio City, Benguet.
- 3210 RC Rajak (49). [Coleoptera]. Rec'd 3 Jun 91. India.
- 3211 SV Krueger (MaEC2). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3290 J Gutierrez Samperio (6) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1988. Mexico: Colima.
- 3291 J Gutierrez Samperio (7) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3292 J Gutierrez Samperio (8) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3293 J Gutierrez Samperio (9) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- 3294 J Gutierrez Samperio (10) ← ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1989. Mexico: Colima.
- 3295 J Gutierrez Samperio (11) ← ERD Reyes. *Anticarsia gemmatilis* [Lepidoptera: Noctuidae] on soybeans. 1987. Mexico: Tamaulipas.
- 3297 J Gutierrez Samperio (13) ← ERD Reyes. *Boophilus* sp. [Acari: Ixodidae] on cow. 1987. Mexico: Colima.
- 3305 J Gutierrez Samperio (21) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.
- 3306 J Gutierrez Samperio (22) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.
- 3307 J Gutierrez Samperio (23) ← ERD Reyes. [Homoptera: Cercopidae] on sugar cane. 1990. Mexico: Colima.
- 3308 J Gutierrez Samperio (24) ← ERD Reyes. *Geraeus senilis* [Coleoptera: Curculionidae] on corn. 1990. Mexico: Colima.
- 3329 DW Roberts ← AS Martins (A-1). 3rd instar larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Spring 88. Portugal: Terceira Island, Azores.
- 3330 SV Krueger (MaJB1). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3331 SV Krueger (MaJB2). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3332 SV Krueger (MaJB3). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3333 SV Krueger (MaJB6). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3334 SV Krueger (MaJB7). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3335 SV Krueger (MaJB8). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3336 SV Krueger (MaJB9). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3337 SV Krueger (MaJB10). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3338 SV Krueger (MaJB11). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3339 SV Krueger (MaJB12). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3340 SV Krueger (MaJB13). *Popillia japonica* [Coleoptera: Scarabaeidae]. Nov 89. USA: Syracuse, New York.
- 3479 CENARGEN (CG 339). [Coleoptera: Scarabaeidae]. 1991. Brazil: Brasília, Federal District.

Metarhizium anisopliae var. *majus* (Johnston)

Tulloch
[Hyphomycetes]

- 297 KJ Marschall. Larva, *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. 22 Nov 78. Western Samoa: Apia.
- 298 RS Soper. Larva, *Xyloryctes jamaicensis* [Coleoptera: Scarabaeidae]. Acc'd 22 Feb 79. Western Samoa: Apia.
- 473 [DAR 28052; QEC 429.0] J Walker ← G Johnson. Soil under *Eucalyptus* sp. Jan 73. Australia: Canberra, Aust. Capital Territory.
- 978 [GCRI 148-82] RA Hall ← A Vey. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Acc'd 17 Oct 83. France.
- 988 J Aoki (Met. 1). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.
- 1015 J Aoki (Met. 4) ← T Kushida. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Hachioji, Tokyo Prefecture.
- 1092 DW Roberts ← K Kawakami (621). Soil. 22 Aug 83. Japan.
- 1093 DW Roberts ← K Kawakami (773). Soil. 1982. Japan.
- 1383 Acc'd 26 Jun 84.
- 1858 DW Roberts (Pol-42). [Coleoptera: Scarabaeidae]. Acc'd 19 Mar 85. Poland.
- 1859 DW Roberts (Pol-32). [Coleoptera: Scarabaeidae]. Acc'd 19 Mar 85. Poland.
- 1914 MC Rombach. Larva, *Oryctes* sp. [Coleoptera: Scarabaeidae]. Apr 85. Philippines: nr. Tiaong Experimental Station, Quezon.
- 1946 MC Rombach (MMQ). *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Acc'd 11 Sep 85. Philippines: Tiaong Experimental Station, Quezon.
- 2151 MC Rombach (170386-1). Larva, *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. 17 Mar 86. Indonesia: Ciamis, Jawa Barat, Java.
- 3145 INRA (Ma-51) ← A Glandard. *Oryctes rhinoceros* [Coleoptera: Scarabaeidae]. Jan 71. France: La Minière.

Metarhizium flavoviride Gams & Rozsypal
[Hyphomycetes]

- 1184 [ARSEF 2024; CBS 700.74; INRA Mf-88] TJ Poprawski ← P Ferron. *Otiorynchus sulcatus* [Coleoptera: Curculionidae]. Jan 74. France: Brittany, Morbihan. CULTURE EX TYPE.
- 2023 CBS (544.81) ← HC Evans. [Orthoptera: Acrididae]. 1981. Ecuador: Santa Fe Island, Galapagos Islands. CULTURE EX TYPE.
- 2024 [ARSEF 1184; INRA Mf-88] CBS (700.74) ← P Ferron. *Otiorynchus sulcatus* [Coleoptera: Curculionidae]. Acc'd 23 Oct 85. France: Brittany, Morbihan. CULTURE EX TYPE.
- 2025 CBS (125.65) ← W Gams and J Rozsypal. Brassica oleracea (agricultural soil). 1963. Germany: Kiel-Kitzeberg. CULTURE EX TYPE.
- 2026 CBS (473.73) ← W Gams and J Rozsypal ← JW Veenbaas-Rijks. Field soil. 1973. Netherlands. CULTURE EX TYPE.
- 2133 [CBS 218.56; IMI 170146] ATCC (32969) ← J Rozsypal. Larvae & pupae, *Ceutorhynchus macula-alba* [Coleoptera: Curculionidae]. 1956. Czechoslovakia. CULTURE EX TYPE.
- 3391 [IIBC 188-377; IMI 324673] *Zonocerus elegans* [Orthoptera: Pyrgomorphidae]. Rec'd 17 Sep 91. Tanzania.
- 3606 IMI (I91-609). *Zonocerus variegatus* [Orthoptera: Pyrgomorphidae]. Rec'd 26 Feb 92. Benin.

Metarhizium flavoviride var. *minus* Rombach,
Humber & Roberts
[Hyphomycetes]

- 1099 DW Roberts (A8). *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1271 DW Roberts (S). *Nilaparvata lugens* [Homoptera: Delphacidae]. Aug 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1272 DW Roberts (Bq). Biotype 2, *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1273 DW Roberts (T2). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1274 DW Roberts (BPH-5). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1275 DW Roberts (BPH-8). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1276 DW Roberts (IV). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: Plant Breeding, IRRI, Los Baños, Manila.
- 1277 DW Roberts (I). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Breeding, IRRI, Los Baños, Manila.

- 1279 DW Roberts (IX). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Plot, IRRI, Los Baños, Manila.
- 1283 DW Roberts (VII). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Field, IRRI, Los Baños, Manila.
- 1287 DW Roberts (BPH-10). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1288 DW Roberts ((i)I). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1289 DW Roberts (BPH-7). Biotype 3, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1291 DW Roberts (A1). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1292 DW Roberts (C). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1293 DW Roberts (H). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1294 [ARSEF ?1295] DW Roberts (BPH-3[?]). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1295 [ARSEF ?1294] DW Roberts (BPH-3[?]). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1296 DW Roberts (BPH-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1297 DW Roberts (A9). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1301 DW Roberts (VI). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Plant Physiology Plot, IRRI, Los Baños, Manila.
- 1302 DW Roberts (5A). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1303 DW Roberts (A10). Biotype 1, *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Sep 83. Philippines: greenhouse, IRRI, Los Baños, Manila.
- 1305 DW Roberts (R). *Nilaparvata lugens* [Homoptera: Delphacidae]. Sep 83. Philippines: Sipit Area, IRRI, Los Baños, Manila.
- 1546 MC Rombach (Lib.11) ← RM Aguda. *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 1983. Philippines: Bicol region.
- 1547 MC Rombach (Lib.16) ← RM Aguda. *Recilia dorsalis* [Homoptera: Cicadellidae] on rice. 1983. Philippines: Bicol region.

- 1763 MC Rombach ← T Ho (Sol-31). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1764 MC Rombach ← T Ho (Sol-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1765 MC Rombach ← T Ho (Sol-28). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1766 MC Rombach ← T Ho (Sol-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1767 MC Rombach ← T Ho (Sol-17). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1768 MC Rombach ← T Ho (Sol-7). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1769 MC Rombach ← T Ho (Sol-14). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1770 MC Rombach ← T Ho (Sol-30). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1771 MC Rombach ← T Ho (Sol-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1772 MC Rombach ← T Ho (Sol-11). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1773 MC Rombach ← T Ho (Sol-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. Nov 84. Solomon Islands: SolRice, Honiara, Guadalcanal.
- 1945 MC Rombach (MALBIRRI). *Nephotettix virescens* [Homoptera: Cicadellidae]. Acc'd 11 Sep 85. Philippines: IRRI, Los Baños, Manila.
- 2037 MC Rombach (051185-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 5 Nov 85. Philippines: IRRI, Los Baños, Manila. CULTURE EX TYPE.
- 2339 MC Rombach (120186-2). [Homoptera: Cicadellidae] on rice. 12 Jan 86. Philippines: Palawan.
- 2948 [CP 271] SP Wraight ← LG Leite. [Homoptera: Cicadellidae]. 30 Apr 89. Brazil: Campinas, São Paulo.
- 3341 [IMI 330189] C Prior. *Ornithacris cavroisi* [Orthoptera: Acrididae]. Rec'd 17 Jun 91. Niger: ICRISAT, nr. Niamey. Single spore isolate.

Mixed culture

The two members in these mixed cultures have not been successfully separated.

- 2738 GW Riethmacher (B4). *Corcyra cephalonica* [Lepidoptera: Pyralidae] after soil passage. 17 Jan 89. Philippines: La Trinidad, Benguet. Contains *Paecilomyces fumosoroseus*.

- 2740 GW Riethmacher (T6.1). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 22 Dec 88. Philippines: La Trinidad, Benguet. Contains *Verticillium* sp. & *Fusarium* sp.
- 3178 GW Riethmacher (B31). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 6 Feb 90. Philippines: La Trinidad, Benguet.
- 3182 GW Riethmacher (B37b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 12 Mar 90. Philippines: Plaridel, Quezon. Contains *Verticillium* sp. and *Penicillium* sp.
- 3472 CENARGEN (CG 307). Soil. 1990. Brazil: Goiás. Contains *B. bassiana* and *P. ?farinosus*.

***Monacrosporium cionopagum* (Drechsler) Subramanian**
[Hyphomycetes]

- 3349 BA Jaffee (G20) ← J Gaspard. Phylum Nemata, Class Secernemtia. Rec'd 9 Sep 91. USA: California.

***Monacrosporium ellipsosporum* (Grove) Cooke & Dickinson**
[Hyphomycetes]

- 3348 BA Jaffee ← J Gaspard. Phylum Nemata, Class Secernemtia. Rec'd 9 Sep 91. USA: California.
- 3723 KT Hodge (10). decorticated wood. Rec'd 18 May 92.
- 3731 BA Jaffee (MK100a). Rec'd 1 Jun 92. USA: Merced County, California.

***Mortierella* sp.**
[Zygomycetes: Mucorales]

- 2063 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

***Mortierella clausenii* (Linnemayer)**
[Zygomycetes: Mucorales]

- 2062 [ATCC 64864; CBS 790.85] GC Carroll (I). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

***Mortierella hyalina* (Harz.)**
[Zygomycetes: Mucorales]

- 2061 [ATCC 64258] GC Carroll (RSRS-0/62). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

***Myriodontium keratinophilum* Samson & Polonelli**
[Hyphomycetes]

- 368 [ARSEF 386] BA Federici ← PS Tsao. *Porcellio* sp. [Isoptera: Oniscoidea]. USA: Riverside, California.
- 386 [ARSEF 368] BA Federici ← PS Tsao. *Porcellio* sp. [Isoptera: Oniscoidea]. USA: Riverside, California.

Nematoctonus sp.
[Basidiomycetes]

- 3351 P Timper ← BA Jaffee. Phylum Nemata, Class Secernemtia. Rec'd 19 Jun 91. USA: California.
3352 P Timper. Phylum Nemata, Class Secernemtia. May 89. USA: Solano County, California.

Neozygites sp.

[Zygomycetes: Entomophthorales]

This culture is provided as hyphal bodies in a liquid tissue culture medium. Spores may be induced by plating hyphal bodies on solid media. Taxonomic criteria separating *Neozygites* species from mites are too poorly understood to allow specific identifications.

- 662 RA Humber ← DR Smitley. *Tetranychus urticae* [Acari: Tetranychidae]. 19 Oct 81. USA: Raleigh, North Carolina.

Neozygites tetranychii Weiser ex Humber, sp. nov.

[Zygomycetes: Entomophthorales]

This culture is provided as hyphal bodies in a liquid tissue culture medium. Spores may be induced by plating hyphal bodies on solid media. Identification of this species is provisional because of correspondence with the source of the strain and the original description of the species.

- 2677 J Weiser. *Tetranychus althaeae* [Acari: Tetranychidae]. 8 Nov 88. Czechoslovakia: Dvory n. Zitavou.

Nomuraea sp.

[Hyphomycetes]

- 2413 K Narayanan (15). *Heliothis armigera* [Lepidoptera: Noctuidae]. Acc'd 6 May 87. India.

Nomuraea anemonoides Hocking

[Hyphomycetes]

- 2467 [ATCC 34948; IMI 214110; JI Pitt FRR 1665] UAMH (5301) ← AD Hocking. Soil. 1974. Australia: Blue Mts., New South Wales. CULTURE EX TYPE.

Nomuraea atypicola (Yasuda) Samson

[Hyphomycetes]

- 1904 MC Rombach (7). [Araneida: ?Argiopidae] on underside of cacao leaves. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Nomuraea rileyi (Farlow) Samson

[Hyphomycetes]

Early vegetative development of cultures on solid media usually occurs in mucoid colonies of fusoid yeast-like cells: mycelial development should begin after several days. Most strains are observed to sporulate most abundantly on Sabouraud maltose agar + 1% yeast extract.

- 135 JV Bell. [Lepidoptera: Noctuidae]. USA: Stoneville, Mississippi.
323 RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 14 Feb 79. Australia: Arriga, Queensland.
358 RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 26 Feb 79. Australia: Queensland.

- 380 [FPMI 753] RS Soper. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 26 Feb 79. Australia: Queensland.
481 RS Soper (10). *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
482 RS Soper. *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
483 RS Soper. *Lymantria* sp. [Lepidoptera: Lymantriidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
539 DW Roberts ← M Panyarjun. *Spodoptera exigua* [Lepidoptera: Noctuidae]. 26 Aug 80. Thailand.
558 RS Soper (8133-3). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Sigere, Pangkajene, Sulawesi Selatan, Celebes.
711 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. Fall 81. PR China: Hangzhou, Zhijiang.
762 TA Coudron ← B Puttler. *Plathypena scabra* [Lepidoptera: Noctuidae] on alfalfa. 2 Jul 82. USA: Columbia, Missouri.
935 [CNPAF 83-2-17-01; CP 74] RA Daoust ← E Ferreira. *Spodoptera* sp. [Lepidoptera: Noctuidae]. 17 Feb 83. Brazil: CNPAF, Goiânia, Goiás.
936 [CNPAF 83-02-18-01; CP 75] RA Daoust ← SM dos Santos. Larva, [Lepidoptera]. 18 Feb 83. Brazil: CNPAF, Goiânia, Goiás.
1014 J Aoki (Nom. 2). *Prodenia litura* [Lepidoptera: Noctuidae]. Oct 78. Japan: Fuchu, Tokyo Prefecture.
1047 [FPMI 754] J Aoki (Nom. 3). *Plusia* sp. [Lepidoptera: Noctuidae]. Jan 80. Japan: Fuchu, Tokyo Prefecture.
1670 G Riba (NR-11). Acc'd 29 Oct 84. France.
1671 G Riba (NR-5). Acc'd 29 Oct 84. France.
1756 MC Rombach ← BM Shepard (NrMin-14). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1757 MC Rombach ← BM Shepard (NrMin-19). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1758 MC Rombach ← BM Shepard (NrMin-1). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1759 MC Rombach ← BM Shepard (NrMin-5). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1760 MC Rombach ← BM Shepard (NrMin-23). *Rivula atimeta* [Lepidoptera: Noctuidae] on rice. Aug 84. Philippines: Mindanao.
1761 MC Rombach (Nr-B). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Aug 84. Philippines: insectary, IRRI, Los Baños, Manila.
1762 MC Rombach ← G Barrion (Nr-BS). *Mocis frugalis* [Lepidoptera: Noctuidae] on rice. Nov 84. Philippines: Bangued, Abra.

- 1879 DW Roberts (090485-3). Larva, [Lepidoptera] on rice. 9 Apr 85. Solomon Islands: nr. Honiara, Guadalcanal.
- 1893 MC Rombach (3). Larva, [Lepidoptera] on rice. Acc'd 10 Jun 85. Solomon Islands: nr. Metapona, Guadalcanal.
- 1950 [CNPAF 85-06-14; CP 175] JMG Ferraz. *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 14 Jun 85. Brazil: Bragança Paulista, Pará.
- 1972 [CNPAF 85-7-24-5; CP 192] JC Lord and BP Magalhães. *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 24 Jul 85. Brazil: Ribeira do Pombal, Bahia.
- 2013 CIRPON — DR Sosa Gomez. *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 1985. Argentina: Tucumán.
- 2174 MC Rombach (130586-14). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 13 May 86. Philippines: nr. Baybay, Leyte.
- 2201 LC Piazza — L da Silva (A285). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. Mar 84. Brazil: Guaíba, Rio Grande do Sul.
- 2202 LC Piazza — NM de Barros (A485). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 24 Mar 85. Brazil: Vacaria, Rio Grande do Sul.
- 2203 LC Piazza (A86). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 13 Mar 86. Brazil: Vacaria, Rio Grande do Sul.
- 2204 LC Piazza — FM Ellwanger (B86). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 12 Mar 86. Brazil: Ijuí, Rio Grande do Sul.
- 2205 LC Piazza — L Baloch (C86). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 10 Mar 86. Brazil: Sarandi, Rio Grande do Sul.
- 2206 LC Piazza — DN Gassen (D86). *Rachiplusia ou* [Lepidoptera: Noctuidae]. 8 May 86. Brazil: Passo Fundo, Rio Grande do Sul.
- 2207 LC Piazza — DN Gassen (E86). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 25 Apr 86. Brazil: Santa Rosa, Rio Grande do Sul.
- 2345 [ARSEF 2390 (never frozen)] MC Rombach (111286-2). *Naranga* sp. [Lepidoptera: Noctuidae] on rice. 11 Dec 86. Indonesia: nr. Klaten, Jawa Tengah, Java.
- 2395 MC Rombach (121186-1). *Rivula atimeta* [Lepidoptera: Noctuidae]. 12 Nov 86. Philippines: IRRRI farm, Los Baños, Manila.
- 2465 TJ Poprawski (8708) — AJ Nasca (Nr-IY3). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 1986. Argentina: Santiago del Estero.
- 2466 TJ Poprawski (8709) — AJ Nasca (Nr-T2). *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. 1985. Argentina: Tucumán.
- 2492 SR Sánchez Peña. *Anticarsia gemmatilis* [Lepidoptera: Noctuidae]. Sep 86. Mexico: Estacion Manuel, Tamaulipas.
- 3301 J Gutierrez Samperio (17) — ERD Reyes. *Spodoptera frugiperda* [Lepidoptera: Noctuidae] on corn. 1988. Mexico: Colima.
- Paecilomyces* sp.
 [Hyphomycetes]
- 309 DW Roberts — FL Briggs. *Epiphyas postvittana* [Lepidoptera: Tortricidae]. Acc'd Mar 79. New Zealand.
- 385 WG Yendol. Rec'd 8 Aug 79. PR China: North Bridges Peoples' Commune, Shanghai, Kiangsu.
- 680 DW Roberts (101081-6). *Recilia dorsalis* [Homoptera: Cicadellidae]. 10 Oct 81. PR China: Jansui, Jiangsu.
- 741 [CNPAF 82-1-15-06; CP 19] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 971 [GCRI 50-81] RA Hall — J Fargues. Acc'd 17 Oct 83. France.
- 1008 J Aoki (Nom. 1) — K Katagiri — T Kushida. *Sesamia inferens* [Lepidoptera: Noctuidae]. Dec 68. Japan: Hachioji, Tokyo Prefecture.
- 2350 [ARSEF 2378] MC Rombach (131286-6). Pupa, [Diptera] on *Croton* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.
- 2354 [ARSEF 2377 (never frozen)] MC Rombach (201286-6). [Araneida]. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2378 [ARSEF 2350] MC Rombach (131286-6). Pupa, [Diptera] on *Croton* sp. 13 Dec 86. Indonesia: tropical rainforest, Gunung Merapi, Yogyakarta, Java.
- 2546 SR Sánchez Peña. *Spodoptera* sp. [Lepidoptera: Noctuidae]. Acc'd 29 Feb 88.
- 2613 SB Alves (715). *Brassolis saphorae* [Lepidoptera: Brassolidae]. Apr 88. Brazil: Moju, Pará.
- 2614 SB Alves (716). *Anteotricha* sp. [Lepidoptera: Oecophoridae]. Apr 88. Brazil: Moju, Pará.
- 2615 SB Alves (717). *Anteotricha* sp. [Lepidoptera: Oecophoridae]. Apr 88. Brazil: Moju, Pará.
- 2616 SB Alves (718). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 88. Brazil: Moju, Pará.
- 2617 SB Alves (719). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 88. Brazil: Moju, Pará.
- 2618 SB Alves (720). *Natada michonta* [Lepidoptera: Limacodidae]. Apr 88. Brazil: Moju, Pará.
- 2620 SB Alves (758). *Brassolis saphorae* [Lepidoptera: Brassolidae]. Jun 88. Brazil: Aracajú, Sergipe.
- 3101 L Loch (CB-75). *Nezara viridula* [Hemiptera: Pentatomidae]. 1986. Brazil: Piracicaba, São Paulo.
- 3545 M Brownbridge (B-38). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 19 Nov 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3566 M Brownbridge (R-48). Rec'd 10 Jan 92.

Paecilomyces amoenoroseus (Hennings) Samson
[Hyphomycetes]

- 2078 [CP 196] JC Lord and BP Magalhães. *Deois flavopicta* [Homoptera: Cercopidae]. 1985. Brazil: Hidrolândia, Goiás.
- 2215 [CNPAF 86-06-05-2; CP 211] DW Roberts ← PMOJ Neves. *Tibraca limbativentres* [Hemiptera: Pentatomidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2958 CENARGEN (CG 162). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.
- 2959 CENARGEN (CG 163). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.
- 2960 CENARGEN (CG 164). *Lagria vilosa* [Coleoptera: Lagriidae]. Rec'd 14 Mar 90. Brazil: Formosa, Goiás.
- 3192 GW Riethmacher (B45a). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 28 May 90. Philippines: Villasis, Pangasinan.

Paecilomyces andoi Shimazu & Humber (sp. nov., unpublished)
[Hyphomycetes]

- 1684 M Shimazu (F-430(4)) ← S Ando. *Resseliella odai* [Diptera: Cecidomyiidae]. 6 Dec 82. Japan: Nakatsue, Oita Prefecture. CULTURE EX TYPE.

Paecilomyces canadensis (Vuillemin) Brown & Smith
[Hyphomycetes]

This species has been treated as a synonym of *Paecilomyces farinosus*.

- 984 [FPMI 757] J Aoki (Paec. 6) ← K Katagiri ← T Kushida. *Heptophylla picea* [Coleoptera: Scarabaeidae]. Feb 72. Japan: Hachioji, Tokyo Prefecture.
- 990 [FPMI 758] J Aoki (Paec. 7) ← K Katagiri ← T Kushida. *Gastropacha orientalis* [Lepidoptera: Lasiocampidae]. Jul 69. Japan: Hachioji, Tokyo Prefecture.

Paecilomyces farinosus (Holm ex SF Gray) Brown & Smith
[Hyphomycetes]

- 3 [ATCC 24319] PW Schaefer. 3rd instar larva, *Malacosoma americanum* [Lepidoptera: Lasiocampidae]. 6 Jun 72. USA: Chapin Beach, Dennis, Massachusetts.
- 20 RS Soper ← I Majchrowicz (1). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 27 Oct 72. USA: Harrisburg, Pennsylvania.
- 38 *Leucoma salicis* [Lepidoptera: Lymantriidae]. 6 Dec 74.
- 55 India.
- 294 "MLC" pupa. 25 Jun 76.
- 475 C Bajan. Rec'd May 80. Poland.
- 476 C Bajan. Rec'd May 80. Poland.
- 531 DW Roberts (82180-13b). [Hemiptera: Pentatomidae]. 21 Aug 80. Malaysia.

- 648 [FPMI 759] RG Lawlor. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Sep 81. USA: Michigan Hollow, West Danby, New York.
- 697 [FPMI 760] C Glenister. *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jan 82. USA: Twin Glens, Tompkins County, New York.
- 763 PM Chang. *Scotinophara coarctata* [Hemiptera: Pentatomidae]. 3 Feb 82. Malaysia: Rice Research Center, Mardi, Bumbong Lima, Icepala Batas, Wellesley Province.
- 799 DA Rodriguez Sierra ← A López. Pupa, *Premnotrypes vorax* [Coleoptera: Curculionidae]. Nov 81. Colombia: Tibaitata, Mosquera, Nariño.
- 975 [GCRI 112-82] RA Hall. *Cydia pomonella* [Lepidoptera: Tortricidae]. Acc'd 17 Oct 83. England.
- 981 [GCRI 52-81] RA Hall. [Lepidoptera: Nymphalidae]. Acc'd 17 Oct 83. England.
- 1042 J Aoki (Cordy. 1). *Quadicalcarifera punctatella* [Lepidoptera: Notodontidae]. Aug 82. Japan: Morioka City, Iwate Prefecture.
- 1043 J Aoki (Paec. 1). *Pyrrhalta fuscipennis* [Coleoptera: Chrysomelidae]. May 73. Japan: Towada City, Aomori Prefecture.
- 1058 [CNPS 30B] F Moscardi. Larva, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.
- 1065 [CNPS 26] F Moscardi. Pupa, *Chlosyne lacinia saundersii* [Lepidoptera: Nymphalidae]. 1983. Brazil: Londrina, Paraná.
- 1108 KV Deseo (27) ← Menarini. Larva, *Conopia myopaeformis* [Lepidoptera: Sesiidae]. Apr 82. Italy: Ferrara, Emilia-Romagna.
- 1111 KV Deseo (32A) ← Becchi. Pupa, *Lobesia botrana* [Lepidoptera: Tortricidae]. Apr 82. Italy: Modena, Emilia-Romagna.
- 1225 [INRA Pf-46] TJ Poprawski. *Laspeyresia medicaginis* [Lepidoptera: Tortricidae]. Apr 81. France: Lusignan, Vienne.
- 1348 S Balazy (1584c). Pupa, [Diptera: Tachinidae]. 25 Sep 83. Poland: Wielkopolski National Park.
- 1349 S Balazy (1584e). Pupa, [Diptera: Tachinidae]. 25 Sep 83. Poland: Wielkopolski National Park.
- 1354 S Balazy (1594a). Rec'd 19 May 84. Poland.
- 1355 S Balazy (1594b). Rec'd 19 May 84. Poland.
- 1358 S Balazy (1595e). Rec'd 19 May 84. Poland.
- 1507 I Majchrowicz (61) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.
- 1508 I Majchrowicz (76) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.
- 1851 [PFRC-FIDS 38-131] HS Whitney (R631) ← P Koot. Cocoon, *Pristiphora erichsonii* [Hymenoptera: Tenthredinidae]. 23 Oct 84. Canada: Morrissey, Fernie, British Columbia.

- 1939 L Turlington (West Borax 1, colony B). Sentinel larva, *Aedes sierrensis* [Diptera: Culicidae]. 28 Jun 85. USA: nr. Clearlake, California.
- 1957 [CNPAF 85-7-22-1; CP 182] JC Lord and BP Magalhães. *Lagria vilosa* [Coleoptera: Lagriidae]. 22 Jul 85. Brazil: União dos Palmares, Alagoas.
- 2057 [NRRL A-27473] GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.
- 2131 AE Hajek. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Mar 86. USA: Tuckahoe, Maryland.
- 2155 BN Muthappa (PNG 12710). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.
- 2175 MC Rombach (130586-3). *Heteropsylla incisa* [Homoptera: Psyllidae]. 13 May 86. Philippines: VISCA demonstration farm, nr. Baybay, Leyte.
- 2269 BT Forschler (RF-1). Larva, *Prionozytus robiniae* [Lepidoptera: Cossidae]. Oct 85. USA: Robinson Forest, Univ. of Kentucky, Breathitt County, Kentucky.
- 2344 [ARSEF 2375 (never frozen)] MC Rombach (221086-1). *Rivula atimeta* [Lepidoptera: Noctuidae]. 22 Oct 86. Philippines: IRRRI farm, Los Baños, Manila.
- 2355 [ARSEF 2379 (never frozen)] MC Rombach (201286-7). [Coleoptera]. 20 Dec 86. Philippines: rainforest, Mt. Makiling, Los Baños, Manila.
- 2564 AE Hajek. Pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Mar 88. USA: Canadice Lake, New York.
- 2576 Acc'd 26 Jul 88.
- 2577 Acc'd 26 Jul 88.
- 2578 Acc'd 26 Jul 88.
- 2658 DG Boucias. *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. Acc'd Dec 88. USA: greenhouse, Gainesville, Florida.
- 2724 GW Riethmacher (B10M). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 2 Mar 89. Philippines: La Trinidad, Benguet.
- 2726 GW Riethmacher (B13B). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 11 Mar 89. Philippines: Atok, Benguet.
- 2734 GW Riethmacher (M1). *Spodoptera* sp. [Lepidoptera: Noctuidae]. 28 Dec 88. Philippines: La Trinidad, Benguet.
- 2807 GW Riethmacher (B15p). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 14 May 89. Philippines: Pagbilao, Quezon.
- 2835 AE Hajek ← K Tatman (MD109#3). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 89. USA: Baltimore County, Maryland.
- 2937 EcoScience Corporation (32-51) ← LJ Dapsis. *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Aug 89. USA: Oregon.
- 2954 [Yoder Bros. Inc F2-28] BM Cawley. *Aleurocanthus woglumi* [Homoptera: Aleyrodidae]. 30 Oct 89. USA: Florida.
- 2971 C López Lastra. Adult, *Aedes albifasciatus* [Diptera: Culicidae]. 13 Apr 87. Argentina: Punta Lara, Buenos Aires.
- 2973 C López Lastra. Larva, *Cylcocephala signaticolis* [Coleoptera: Scarabaeidae]. 10 Sep 86. Argentina: Salto, Buenos Aires.
- 2975 C López Lastra. Soil. 30 Jan 86. Antarctica: Base Primavera.
- 3017 SB Krasnoff. *Pyrrharctia isabella* [Lepidoptera: Arctiidae]. 5 Jul 90. USA: Troy Road, Ithaca, New York.
- 3152 KT Hodge. Pupa, [Lepidoptera]. 10 Oct 91. USA: Lost Gorge, Tompkins County, New York.
- 3183 GW Riethmacher (B38). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 7 Apr 90. Philippines: Atimonan, Quezon.
- 3184 GW Riethmacher (B39). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 11 Apr 90. Philippines: Sariaya, Quezon.
- 3185 GW Riethmacher (B40). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 23 Apr 90. Philippines: Lopez, Quezon.
- 3186 GW Riethmacher (B41). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 25 Apr 90. Philippines: Padre Burgos, Quezon.
- 3191 GW Riethmacher (B44b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 17 May 90. Philippines: La Trinidad, Benguet.
- 3221 AE Hajek. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd 8 Feb 91. USA: Luzerne County, Pennsylvania.
- 3461 SV Krueger (549). Soil. Jun 91. USA: Smith Forest, Trumansburg, New York.
- 3490 AE Hajek (1b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 29 May 91. USA: nr. Crossroads, Albemarle County, Virginia.
- 3491 AE Hajek (4a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: nr. Cool Spring, Mercer County, Pennsylvania.
- 3492 AE Hajek (9b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: Poplar Hill, Prince Georges County, Maryland.
- 3493 AE Hajek (18b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: Union Springs, Rockingham County, Virginia.
- 3494 AE Hajek (21a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 30 May 91. USA: Hunting Creek, Bedford County, Virginia.
- 3495 AE Hajek (26a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 91. USA: Hawes Run, Pendleton County, West Virginia.

- 3496 AE Hajek (32c). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Holloway Draft, Augusta County, Virginia.
- 3497 AE Hajek (36a). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Big Mary's Creek, Rockbridge County, Virginia.
- 3498 AE Hajek (37c). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: Piscataway, Maryland.
- 3499 AE Hajek (Red b (40)). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: Shenango River Reservoir, Mercer County, Pennsylvania.
- 3500 AE Hajek (47b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 5 Jun 91. USA: Belle Acre, Allegheny County, Pennsylvania.
- 3501 AE Hajek (49b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 5 Jun 91. USA: Lovington Spring, Nelson County, Virginia.
- 3502 AE Hajek (52b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Piney River, Virginia.
- 3503 AE Hajek (53a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Hog Camp, Amherst County, Virginia.
- 3504 AE Hajek (54b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: White Rock Trail, Augusta County, Virginia.
- 3505 AE Hajek (57b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 91. USA: Wiggins Spring, Amherst County, Virginia.
- 3506 AE Hajek (62a). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Brady Run, Beaver County, Pennsylvania.
- 3507 AE Hajek (64a). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 91. USA: Accokeek, Maryland.
- 3508 AE Hajek (68c). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: nr. Ruckersville, Greene County, Virginia.
- 3517 AE Hajek (91a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: Darnell Hollow, Monongalia County, West Virginia.
- 3518 AE Hajek (94b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 91. USA: Clifton Mills Rd., Preston County, West Virginia.
- 3519 AE Hajek (95a). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Sandy Creek, Preston County, West Virginia.
- 3520 AE Hajek (102a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: Harris Lake, Monongalia County, West Virginia.
- 3521 AE Hajek (128b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 12 Jun 91. USA: Camp Run, Pendleton County, West Virginia.
- 3522 AE Hajek (140a). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: Quarry Run, Monongalia County, West Virginia.
- 3523 AE Hajek (145b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 4 Jun 91. USA: State Game Land #203, Allegheny County, Pennsylvania.
- 3524 AE Hajek (166a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 11 Jun 91. USA: nr. C & O Canal, Allegany County, Maryland.
- 3525 AE Hajek (203b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 91. USA: Galloway Rd., Preston County, West Virginia.
- 3526 AE Hajek (216b). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: nr. Piclic Run, Allegany County, Maryland.
- 3533 AE Hajek (298b). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 31 May 91. USA: Parker Run, Preston County, West Virginia.
- 3537 M Brownbridge (HL-1.1). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. 4 Dec 91. USA: Whittington, Vermont.
- 3538 M Brownbridge (HL-2.3). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. 4 Dec 91. USA: Whittington, Vermont.
- 3564 M Brownbridge (R-38). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 4 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3572 TJ Poprawski (2). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3573 TJ Poprawski (3). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3574 TJ Poprawski (4). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3575 TJ Poprawski (5). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3576 TJ Poprawski (6). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3577 TJ Poprawski (7). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3578 TJ Poprawski (8). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3579 TJ Poprawski (9). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3580 TJ Poprawski (10). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.

- 3581 SP Wright (11). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3582 SP Wright (12). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3583 SP Wright (13). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3584 SP Wright (14). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3585 SP Wright (16). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3586 SP Wright (17). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3587 SP Wright (18). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3588 SP Wright (19). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3589 SP Wright (20). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3590 TJ Poprawski (21). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3591 TJ Poprawski (22). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3592 TJ Poprawski (23). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3593 TJ Poprawski (24). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3594 TJ Poprawski (25). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 3 Feb 92. USA: cabbage field, McAllen, Texas.
- 3595 AE Hajek (35). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 24 Jun 91. USA: horsetrack at Equine Center, Freese Rd., Ithaca, New York.
- 3596 AE Hajek (146). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: Salem Park, Ithaca, New York.
- 3597 AE Hajek (149). Pre-pupa, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 13 Jun 91. USA: 35 Sapsucker Woods Rd., Ithaca, New York.
- 3598 AE Hajek (370). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 17 Jun 91. USA: Uhl, Ithaca, New York.
- 3599 AE Hajek (438). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: nr. Equine Center, Freese Rd., Ithaca, New York.
- 3658 TJ Poprawski (40). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on fig tree. 28 Jan 92. USA: El Centro, California.
- 3659 TJ Poprawski (41). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 28 Jan 92. USA: Calexico, California.
- 3660 TJ Poprawski (43). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae] on hibiscus. 28 Jan 92. USA: Calexico, California.
- 3661 TJ Poprawski (44). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae] on vine. 28 Jan 92. USA: Heber, California.
- 3662 TJ Poprawski (45). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on hibiscus. 28 Jan 92. USA: Calexico, California.
- 3663 TJ Poprawski (48). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on orchid tree. 28 Jan 92. USA: Calexico, California.
- 3664 AE Hajek (1). 4th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 20 Jun 91. USA: Weakley Hollow, Madison County, Virginia.
- 3665 AE Hajek (23). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 10 Jun 91. USA: Runkles Gap, Rockingham County, Virginia.
- 3666 AE Hajek (27). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 3 Jun 91. USA: nr. C & O Canal, Allegany County, Maryland.

Paecilomyces flavovirescens Shimazu & Humber
(sp. nov., unpublished)
[Hyphomycetes]

- 1686 M Shimazu (48a) ← S Ando. *Resseliella odai* [Diptera: Cecidomyiidae]. 26 Jul 84. Japan: Oita Prefecture. CULTURE EX TYPE.

Paecilomyces fumosoroseus (Wize) Brown & Smith
[Hyphomycetes]

- 722 [CNPAF 82-1-15-05; CP 18] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 723 [CNPAF 82-1-6-10; CP 17] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. 6 Jan 82. Brazil: CNPAF, Goiânia, Goiás.
- 744 [CNPAF 82-2-15-05; CP 26] RA Daoust. *Lagria vilosa* [Coleoptera: Lagriidae]. Feb 82. Brazil: CNPAF, Goiânia, Goiás.
- 887 [INRA 51] GG Soares (1) ← H Hoyer. Pupa, [Diptera]. Nov 82. France: nr. Paris.
- 989 J Aoki (Paec. 3) ← Y Sekizima. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Kumagaya, Saitama Prefecture.

- 1005 J Aoki (Paec. 2). *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Fuchu, Tokyo Prefecture.
- 1506 I Majchrowicz (71) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.
- 1530 TJ Poprawski (0127A(bis)). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.
- 1532 TJ Poprawski (0127B(bis)). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 5 Jul 84. Italy: Orvieto, Umbria.
- 1568 KV Deseo (101) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).
- 1569 KV Deseo (107) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).
- 1576 KV Deseo (93). Larva, *Monophadnus elongatus* [Hymenoptera: Tenthredinidae]. Feb 84. Italy: Bologna, Emilia-Romagna.
- 1577 KV Deseo (104) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).
- 1578 KV Deseo (108) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).
- 1579 KV Deseo (110) ← Cortellini. Pupa, *Hyphantria cunea* [Lepidoptera: Arctiidae]. Mar 84. Italy: Cade (Reggio).
- 1626 TJ Poprawski (0103B). Pupa, *Musca autumnalis* [Diptera: Muscidae]. 6 Aug 84. France: Le Trait, Seine-Maritime.
- 1644 TJ Poprawski (0141A). Pupa, *Musca domestica* [Diptera: Muscidae]. 14 Aug 84. France: Britang.
- 1645 TJ Poprawski (0141B). Pupa, *Musca domestica* [Diptera: Muscidae]. 14 Aug 84. France: Britang.
- 1646 TJ Poprawski (0142). Pupa, *Calliphora* sp. [Diptera: Calliphoridae]. 17 Aug 84. France: Béhous, Yvelines.
- 1867 TJ Poprawski (0171). Pupa, *Musca domestica* [Diptera: Muscidae]. Acc'd 25 Mar 85. France: Brittany, Morbihan.
- 1868 TJ Poprawski (0172). Pupa, *Musca domestica* [Diptera: Muscidae]. Acc'd 25 Mar 85. France: Brittany, Morbihan.
- 2198 MC Rombach (161285-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 16 Dec 85. Philippines: IRRRI farm, Los Baños, Manila.
- 2216 [CNPAF 86-06-05-1; CP 212] DW Roberts ← PMOJ Neves. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2217 [CNPAF 86-06-02-2; CP 213] DW Roberts ← OS Ohashi. *Lagria vilosa* [Coleoptera: Lagriidae]. 2 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2219 [CNPAF 86-06-05-3; CP 215] DW Roberts ← DMF Capalbo. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2220 [CNPAF 86-06-05-4; CP 216] DW Roberts ← GS da Silva. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2221 [CNPAF 86-06-05-1; CP 217] DW Roberts ← OS Ohashi. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2247 LS Osborne (UK-1). *Phenacoccus solani* [Homoptera: Pseudococcidae] on *Gynura* sp. Acc'd 6 Oct 86. USA: Florida.
- 2376 MC Rombach (201286-5). [Araneida]. 20 Dec 86. Philippines: Mt. Makiling, Los Baños, Manila.
- 2425 DG Holdom (080287-2). Larva, [Diptera: ?Stratiomyidae]. 8 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2429 DG Holdom (220287). *Nilaparvata lugens* [Homoptera: Delphacidae]. 22 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2679 AS Martins. 3rd instar larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 13 Oct 88. Portugal: Terceira Island, Azores.
- 2733 GW Riethmacher (B11W).. Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Mar 89. Philippines: La Trinidad, Benguet.
- 2744 GW Riethmacher (B5R9). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Feb 89. Philippines: Atok, Benguet.
- 2745 GW Riethmacher (B5T10). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 6 Feb 89. Philippines: Atok, Benguet.
- 2749 GW Riethmacher (L4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 21 Mar 89. Philippines: La Trinidad, Benguet.
- 2804 GW Riethmacher (B12p). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 11 Apr 89. Philippines: Sta. Barbara, Pangasinan.
- 2952 [CP 273] SP Wraight ← CA da Silva. *Lagria vilosa* [Coleoptera: Lagriidae]. 8 Nov 88. Brazil: CNPAF, Goiânia, Goiás.
- 2956 CENARGEN (CG 123). *Spaethiella* sp. [Coleoptera: Chrysomelidae]. Rec'd 14 Mar 90. Brazil: Manaus, Amazonas.
- 3076 BM Cawley ← R Hernandez-Armenta. Immature, *Bemisia tabaci* [Homoptera: Aleyrodidae] on shade house-grown *Gerbera* sp. 10 Jul 90. USA: Naples, Florida.
- 3083 AD Ali. *Bemisia tabaci* [Homoptera: Aleyrodidae] on *Gerbera* sp. Rec'd 12 Sep 90. USA: nursery, nr. Alva, Florida.
- 3177 GW Riethmacher (B23). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrioidae] as a trap. 18 Dec 89. Philippines: Gumaca, Quezon.

- 3179 GW Riethmacher (B32). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 6 Feb 90. Philippines: La Trinidad, Benguet.
- 3188 GW Riethmacher (B43b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 3 May 90. Philippines: La Trinidad, Benguet.
- 3302 J Gutierrez Samperio (18) ← ERD Reyes. *Diaphania hyalinata* [Lepidoptera: Pyralidae] on melon. 1990. Mexico: Michoacán, Baja California.
- 3313 J Gutierrez Samperio (29) ← ERD Reyes. *Bemisia* sp. [Homoptera: Aleyrodidae] on watermelon. 1990. Mexico: Tecomán, Colima.
- 3322 Yoder Bros. Inc (F2-4 BR). *Bemisia tabaci* [Homoptera: Aleyrodidae] on *Gerbera* sp. Dec 90. USA: Ft. Meyer, Florida.
- 3408 AD Ali. *Bemisia tabaci* [Homoptera: Aleyrodidae]. Rec'd 6 Apr 92. selected for resistance to benomyl at recommended field strength.
- 3429 K Ostrovska (51). [Hemiptera: Pentatomidae]. 25 Sep 91. Costa Rica: Carrara.
- 3458 AD Ali. *Myzus persicae* [Homoptera: Aphididae]. Rec'd 6 Apr 92.
- 3480 CENARGEN (CG 35). Leaves of *Cyperus rotundus*. Apr 91. Brazil: Brasília, Federal District.
- 3682 LS Osborne. [Homoptera: Aphididae]. Rec'd Apr 92. USA: Central Florida Research and Education Center, Apopka, Florida.
- 3699 LA Lacey (Ma17). Adult, *Bemisia tabaci* [Homoptera: Aleyrodidae]. 7 Apr 92. India: Padappai.
- 3700 LA Lacey (Ma18). Nymph, *Bemisia tabaci* [Homoptera: Aleyrodidae] on eggplant. 10 Apr 92. India: Padappai.

Paecilomyces guaensis Rombach & Humber
[Hyphomycetes]

- 2152 MC Rombach (190386-1). [Orthoptera: Gryllidae]. 19 Mar 86. Indonesia: burial caves at Londa, nr. Makale, Sulawesi Selatan, Celebes.

Paecilomyces javanicus (Friederichs & Bally) Brown & Smith
[Hyphomycetes]

- 322 GR Buckingham. *Litodactylus leucogaster* [Coleoptera: Curculionidae]. Dec 78. USA: Gainesville, Florida.
- 720 RS Soper. *Bombyx mori* [Lepidoptera: Bombycidae]. 11 Nov 81. PR China: Hangzhou, Zhijiang.
- 3303 J Gutierrez Samperio (19) ← ERD Reyes. *Bemisia* sp. [Homoptera: Aleyrodidae] on watermelon. 1990. Mexico: Tecomán, Colima.

Paecilomyces lilacinus (Thom) Samson
[Hyphomycetes]

This species is being actively studied for the control of nematodes.

Caution: It is also known to be the causative agent of mycoses (primarily of the eye) in humans. There is probably little or no risk to workers handling this species for small-scale laboratory propagation and bioassay procedures. Caution should be observed to prevent chronic and/or massive exposure to airborne conidia of this species to minimize any associated health risks.

- 410 CW McCoy. *Diaprepes abbreviata* [Coleoptera: Curculionidae]. 20 Jul 79. USA: Apopka, Florida.
- 986 J Aoki (Paec. 5) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Suginami, Tokyo Prefecture.
- 1552 MC Rombach (PAEC) ← MM Salleh. *Scotinophara coarctata* [Hemiptera: Pentatomidae] on rice. May 84. Malaysia: Seberang Perai.
- 1951 [CENARGEN CG 301; CNPAF 85-05-02; CP 176] R Pereira. *Ceratomya* sp. [Coleoptera: Chrysomelidae]. 2 May 85. Brazil: Campos, Rio de Janeiro.
- 2181 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Matalom, Leyte.
- 2182 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Ormoc, Leyte.
- 2183 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Peru.
- 2184 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: University of the Philippines, Los Baños, Manila.
- 2185 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Carigara, Leyte.
- 2186 MC Rombach ← LT Villacarlos. Egg mass, *Meloidogyne* sp. [Tylenchida: Heteroderidae] on potato. Acc'd 31 May 86. Philippines: Abuyog, Leyte.
- 3469 CENARGEN (CG 181). Soil. Jun 90. Brazil: Canarana, Mato Grosso.
- 3481 CENARGEN (CG 36). Egg, *Deois flavopicta* [Homoptera: Cercopidae]. Sep 91. Brazil: Brasília, Federal District.
- 3511 I Quintela (VL3). Rec'd 13 Dec 91.
- 3512 I Quintela (VL4). Rec'd 13 Dec 91.

Paecilomyces marquandii (Masse) Hughes
[Hyphomycetes]

- 2233 K Narayanan (8). *Meloidogyne* sp. [Tylenchida: Heteroderidae]. Rec'd 27 Aug 86. India.
- 3047 MS Goettel (4B-A). Soil. Jul 90. Mali: Mordiah.

3049 MS Goettel (4B-B). Soil. Jul 90. Mali: Mordiah.

Paecilomyces reniformis Samson & Evans in Samson
[Hyphomycetes]

- 429 DW Roberts. [Orthoptera: Tettigoniidae] on rice. 31 Oct 79. Philippines: IRRI, Los Baños, Manila.
484 RS Soper. [Orthoptera: Tettigoniidae] on rice. 5 May 80. Philippines: IRRI, Los Baños, Manila.
577 RS Soper. [Orthoptera: Tettigoniidae] on rice. 24 Feb 81. Indonesia: Diski Village, Medan District, Sumatera Utara.
2340 [ARSEF 2380 (never frozen)] MC Rombach (120286-1). *Conocephalus* sp. [Orthoptera: Tettigoniidae] on rice. 12 Feb 86. Philippines: Palawan.

Paecilomyces tenuipes (Peck) Samson
[Hyphomycetes]

- 2488 SR Sánchez Peña (A1). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez Farias, Tamaulipas. Restricted until September 1994.
2489 SR Sánchez Peña (A2). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez Farias, Tamaulipas. Restricted until September 1994.
2490 SR Sánchez Peña (B1). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez Farias, Tamaulipas. Restricted until September 1994.
2491 SR Sánchez Peña (B2). *Spodoptera frugiperda* [Lepidoptera: Noctuidae]. 16 Sep 87. Mexico: Gómez Farias, Tamaulipas. Restricted until September 1994.

Paecilomyces viridis Segretain ex Samson
[Hyphomycetes]

- 807 RA Daoust (Ek8-4). *Empoasca kraemeri* [Homoptera: Cicadellidae]. Brazil.
2160 BN Muthappa (PNG 12720). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.
2456 UAMH (2994) ← Pasteur Institute (CIP-849). Rec'd 28 Jul 87.

Paecilomyces sp. nov.
[Hyphomycetes]

- 3084 J Peña ← H Glenn. *Unaspis citri* [Homoptera: Diaspididae] on *Citrus aurantifolia*. May 90. USA: Homestead, Florida.

Pandora blunckii (Lakon ex Zimmerman) Humber
[Zygomycetes: Entomophthorales]

- 217 [ATCC 34698; CBS 194.77; IMI 211910] G Zimmermann (2). Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. 27 Mar 78. Germany: Gross-Bieberau, Darmstadt, Hesse. CULTURE EX NEOTYPE.
915 S Keller (426). *Athalia rosae* [Coleoptera: Elateridae]. 1 Sep 82. Switzerland.
917 S Keller (425). *Athalia rosae* [Coleoptera: Elateridae]. 1 Sep 82. Switzerland: Zürich.

920 S Keller (430). *Athalia rosae* [Coleoptera: Elateridae]. 1 Sep 82. Switzerland: Zürich.

- 1000 J Aoki (Ent. 30) ← H Tomiyama. *Plutella xylostella* [Lepidoptera: Plutellidae]. Nov 77. Japan: Fuchu, Tokyo Prefecture.
1004 [FPMI 752] J Aoki (Ent. 35) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.
1715 S Keller (514). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 84. Switzerland: Reckenholz, Zürich.
1716 S Keller (515). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 84. Switzerland: Reckenholz, Zürich.
1717 S Keller (516). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 84. Switzerland: Reckenholz, Zürich.
1718 S Keller (517). *Athalia rosae* [Coleoptera: Elateridae]. 3 Oct 84. Switzerland: Reckenholz, Zürich.
2824 GW Riethmacher (EB4). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 89. Philippines: La Trinidad, Benguet. ARSEF 2776, *Fusarium* sp., also isolated from Riethmacher #EB4.
3075 DG Holdom. *Plutella* sp. [Lepidoptera: Plutellidae]. 27 Apr 90. Australia: Lockyer Valley, Queensland.
3200 GW Riethmacher (EB3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Apr 89. Philippines: La Trinidad, Benguet.
3201 GW Riethmacher (EB6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 13 May 89. Philippines: La Trinidad, Benguet.
3202 GW Riethmacher (EB7). *Plutella xylostella* [Lepidoptera: Plutellidae]. 8 Jun 89. Philippines: La Trinidad, Benguet.

Pandora bullata (Thaxter & MacLeod in Humber)
Humber
[Zygomycetes: Entomophthorales]

- 116 [ARSEF 9 (lost); ATCC 24298] RS Soper. Adult, *Phaenicia sericata* [Diptera: Calliphoridae]. 2 Aug 72. USA: Eastham, Massachusetts.

Pandora delphacis (Hori) Humber
[Zygomycetes: Entomophthorales]

- 134 M Shimazu. *Nilaparvata lugens* [Homoptera: Delphacidae]. 1975. Japan: Fukuoka, Fukuoka Prefecture.
458 RS Soper. *Nephotettix cincticeps* [Homoptera: Cicadellidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
459 RS Soper. *Nephotettix cincticeps* [Homoptera: Cicadellidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
460 RS Soper. *Nephotettix cincticeps* [Homoptera: Cicadellidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
461 RS Soper. *Nephotettix cincticeps* [Homoptera: Cicadellidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.

- 478 RS Soper (B). *Nephotettix cincticeps* [Homoptera: Cicadellidae]. 5 May 80. Philippines: IRRI, Los Baños, Manila.
- 575 RS Soper (8132-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 2 Mar 81. Indonesia: Desa Dasan Tereng Village, Kecamatan Narmada District, Lombok Island.
- 579 RS Soper (8132-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 2 Mar 81. Indonesia: Desa Dasan Tereng Village, Kecamatan Narmada District, Lombok Island.
- 580 RS Soper (81223-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 23 Feb 81. Indonesia: Bangun Village, Kecamatan Tanjung, Deliserdang District, Sumatera Utara, Sumatra.
- 593 [CSIRO EM654] RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
- 603 RS Soper (8133-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 3 Mar 81. Indonesia: Pangkep Kaba, Sulawesi Selatan, Celebes.
- 657 DW Roberts (101081-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Jansui, Jiangsu.
- 659 DW Roberts (101081-6-2). *Recilia dorsalis* [Homoptera: Cicadellidae]. 10 Oct 81. PR China: Jansui, Jiangsu.
- 660 DW Roberts (101081-6-2). *Recilia dorsalis* [Homoptera: Cicadellidae]. 10 Oct 81. PR China: Jiangsu.
- 665 DW Roberts (102181-9). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 666 DW Roberts (102181-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 667 DW Roberts (102181-6). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 668 DW Roberts (101081-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Nanjing, Jiangsu.
- 669 DW Roberts (102181-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 670 DW Roberts (101381-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 13 Oct 81. PR China: Hangzhou, Zhijiang.
- 672 DW Roberts (101081-5-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Nanjing, Jiangsu.
- 673 DW Roberts (100981-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 9 Oct 81. PR China: Nanjing, Jiangsu.
- 674 DW Roberts (100981-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 9 Oct 81. PR China: Nanjing, Jiangsu.
- 676 DW Roberts (102181-5). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 682 DW Roberts (101081-2-3). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Nanjing, Jiangsu.
- 686 DW Roberts (101081-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Oct 81. PR China: Jiangsu.
- 698 *Nilaparvata lugens* [Homoptera: Delphacidae]. 11 Apr 81. PR China: Wuhan, Hupei.
- 713 DW Roberts (102181-4). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 716 DW Roberts (100981-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 9 Oct 81. PR China: Nanjing, Jiangsu.
- 1101 J Aoki (Ent. 36) ← M Shimazu. Acc'd 14 Mar 84. Japan: Chikugo, Fukuoka Prefecture.
- 1124 M Shimazu (F-16). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 29 Mar 84. Japan: Fukuoka Prefecture.
- 1132 M Shimazu (F-32). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.
- 1133 M Shimazu (F-33). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.
- 1238 [CNPAF 84-04-13-1B; CP 138] DW Roberts. [Homoptera: Cicadellidae]. 13 Apr 84. Brazil: CNPAF, Goiânia, Goiás.
- 1264 J Aoki (Ent. 6) ← M Shimazu. *Nilaparvata lugens* [Homoptera: Delphacidae]. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.
- 1265 J Aoki (Ent. 7) ← H Tomiyama. *Mamestra brassicae* [Lepidoptera: Noctuidae]. Nov 75. Japan: Fuchu, Tokyo Prefecture.
- 1268 M Shimazu (F-56). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.
- 1730 DW Roberts (26108) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.
- 1731 DW Roberts (26105) and MC Rombach. *Nilaparvata lugens* [Homoptera: Delphacidae]. 26 Oct 84. India: greenhouse, All India Coop. Rice Inv. Project, Hyderabad, Andhra Pradesh.
- 1936 SG Wraight and SP Wraight (Q1). [Homoptera: Cicadellidae]. 31 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 2028 JA Harper. *Spissistilus festinus* [Homoptera: Membracidae]. Acc'd 28 Oct 85. USA: Auburn, Alabama.
- 2046 P Taylor. Reisolate of ARSEF 579 passed through *Sogatodes oryzicola* [Homoptera: Delphacidae]. Acc'd 26 Nov 85. Lab. manipulation.

- 2047 P Taylor. Reisolate of ARSEF 579 passed through *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 26 Nov 85. Lab. manipulation.
- 2091 DG Holdom (200186-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 20 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2092 DG Holdom (260186-1). *Sogatella furcifera* [Homoptera: Delphacidae]. 26 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2093 DG Holdom (260186-2). *Sogatella furcifera* [Homoptera: Delphacidae]. 26 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2094 DG Holdom (270186). *Sogatodes pusanus* [Homoptera: Delphacidae]. 27 Jan 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2095 DG Holdom (020286). *Sogatella furcifera* [Homoptera: Delphacidae]. 2 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2096 DG Holdom (060286). *Sogatella furcifera* [Homoptera: Delphacidae]. 6 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2409 DG Holdom (310187-1). *Sogatella furcifera* [Homoptera: Delphacidae]. 31 Jan 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 3062 M Wheeler. [Hemiptera: Miridae]. 13 Aug 90. USA: Snapp field #2D, Newark Valley, New York.
- 3072 M Wheeler ← H Firstencel. *Empoasca fabae* [Homoptera: Cicadellidae]. 7 Aug 90. USA: Snapp field #8A, Newark Valley, New York.
- 3093 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 11 Sep 90. USA: Snapp field #5G, Newark Valley, New York.
- 3094 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 11 Sep 90. USA: Snapp field #4G, Newark Valley, New York.
- 3095 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 10 Sep 90. USA: Hoffman field #2B, Catherine, New York.
- 3096 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 10 Sep 90. USA: Hoffman field #1G, Catherine, New York.
- 3106 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 20 Sep 90. USA: Hoffman field #4C, Catherine, New York.
- 3107 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 28 Sep 90. USA: Hoffman field #1B, Catherine, New York.

- 3484 G Lorenz. *Spissistilus festinus* [Homoptera: Membracidae] on soybeans (*Glycine max*). 18 Oct 91. USA: Lonoke County, Arkansas.

Pandora dipterigena (Thaxter) Humber
 [Zygomycetes: Entomophthorales]

- 131 N Wilding (1). [Diptera]. 24 Aug 76. USA: Rogers Farm, Stillwater, Maine.
- 397 [ARSEF ?1066] S Keller (92). [Diptera: Nematocera]. 5 Jun 78. Switzerland.
- 1422 S Balazy (1496c). [Diptera: Brachycera] attached to the underside of lime tree leaf in deciduous forest undergrowth. 4 Jun 82. Poland: Bialowieza National Park.
- 1720 S Keller (521). [Diptera]. 18 Oct 84. Switzerland: Trasadingen, Schaffhausen.
- 1887 M Shimazu. [Diptera: ?Sciaridae]. 1 Jun 85. USA: Allegany State Park, Salamanca, New York.
- 1923 M Shimazu (FE1). [Diptera]. Summer 85. USA: Allegany State Park, Salamanca, New York.
- 2406 RI Samuels. Adult, [Trichoptera]. Aug 86. England: Newton Park, Avon.

Pandora kondoiensis (Milner, Mahon, & Brown)
 Humber
 [Zygomycetes: Entomophthorales]

- 369 [ARSEF 825] CSIRO (EM507) ← R Teakle. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. 5 Oct 77. Australia: Brisbane, Queensland.
- 825 [ARSEF 369] CSIRO (EM507) ← R Teakle. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. 5 Oct 77. Australia: Brisbane, Queensland.
- 828 CSIRO (EM598) ← RD Hughes. *Acyrtosiphon pisum* [Homoptera: Aphididae] on lucerne. 31 Jul 80. Australia: Dubbo, New South Wales.
- 837 CSIRO (EM600) ← RD Hughes. *Acyrtosiphon kondoi* [Homoptera: Aphididae] on lucerne. 31 Jul 80. Australia: Dubbo, New South Wales.

Pandora neoaphidis (Remaudière & Hennebert) Humber
 [Zygomycetes: Entomophthorales]

- 78 RG Kenneth (E.a. 11) or (3072) ← A Uziel. [Homoptera: Aphididae] on *Solanum hirsutum*. Mar 76. Israel: potato field, Achuzam.
- 128 [IPLB 52] JP Latgé and G Remaudière. *Aphis* sp. [Homoptera: Aphididae] on *Cornus* sp. [Cornaceae]. 26 Aug 76. Canada: Saint-Gédéon, Québec.
- 181 FR Holbrook. *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 9 Aug 77. USA: Maine.
- 381 RS Soper. [Homoptera: Aphididae]. 26 Feb 79. Australia.
- 608 I Majchrowicz (80). *Aphis fabae* [Homoptera: Aphididae]. Jul 80. Poland: Szczecin.

- 609 I Majchrowicz (81). *Aphis fabae* [Homoptera: Aphididae]. Jul 80. Poland: Szczecin.
- 610 I Majchrowicz (82). *Aphis fabae* [Homoptera: Aphididae]. Jul 80. Poland: Szczecin.
- 611 I Majchrowicz (87). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.
- 612 I Majchrowicz (88). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.
- 613 I Majchrowicz (90). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.
- 614 I Majchrowicz (91). *Aphis fabae* [Homoptera: Aphididae]. Aug 80. Poland: Szczecin.
- 636 I Majchrowicz (102). *Aphis fabae* [Homoptera: Aphididae]. 3 Jul 81. Poland: Szczecin.
- 637 I Majchrowicz (103). *Aphis fabae* [Homoptera: Aphididae]. 6 Jul 81. Poland: Stanpanel.
- 638 [CSIRO EM653] I Majchrowicz (104). *Aphis fabae* [Homoptera: Aphididae]. 16 Jul 81. Poland: Gumiencie, Szczecin.
- 639 I Majchrowicz (105). *Aphis fabae* [Homoptera: Aphididae]. 18 Jul 81. Poland: Gryfino, Szczecin.
- 827 CSIRO (EM717) ← RJ Huppertz. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 11 Jan 82. Australia: 30 km from Deniliquin, Echuca, New South Wales.
- 829 CSIRO (EM736) ← LT Woolcock. *Hyperomyzus lactucae* [Homoptera: Aphididae]. 29 Nov 82. Australia: Murwillumbah, New South Wales.
- 830 CSIRO (EM723) ← RJ Huppertz. *Acyrtosiphon pisum* [Homoptera: Aphididae]. Fall 82. Australia: Hamilton, Victoria.
- 831 CSIRO (EM623) ← LT Woolcock. *Acyrtosiphon pisum* [Homoptera: Aphididae] on lucerne. 21 Apr 81. Australia: Bega, New South Wales.
- 833 [CSIRO EM739] RJ Milner. *Hyperomyzus lactucae* [Homoptera: Aphididae]. 8 Nov 82. Chile: airport, Easter Island.
- 835 CSIRO (EM633) ← L Shu-Sheng. *Hyperomyzus lactucae* [Homoptera: Aphididae] on *Sonchus* sp. 18 Jun 81. Australia: Black Mountain, Canberra, Aust. Capital Territory.
- 836 CSIRO (EM635) ← G Lutton. *Acyrtosiphon kondoi* [Homoptera: Aphididae] on lucerne. 29 Sep 81. Australia: 2 km SW of Gundagai, New South Wales.
- 838 CSIRO (EM670) ← G Lutton. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 13 Apr 82. Australia: Murrumbateman, New South Wales.
- 993 J Aoki (Ent. 25) ← K Nakamura. *Uroleucon formosanus* [Homoptera: Aphididae]. Jul 77. Japan: Hino, Tokyo Prefecture.
- 1134 M Shimazu (F-36). *Macrosiphum akebiae* [Homoptera: Aphididae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.
- 1137 M Shimazu (F-54). *Dactynotus formosanus* [Homoptera: Aphididae]. Acc'd 3 Apr 84. Japan: Tokyo Prefecture.
- 1570 DW Roberts ← F Messina. *Lygus* sp. [Hemiptera: Miridae] on cowpea. 31 Aug 84. USA: Ithaca, New York.
- 1596 I Majchrowicz (34). Pterygotes, *Hyalopterus pruni* [Homoptera: Aphididae]. Acc'd 19 Sep 84.
- 1597 I Majchrowicz (37). Apterygotes, *Sitobion* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84.
- 1598 I Majchrowicz (50). Pterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: Bezreus, Avignon.
- 1600 I Majchrowicz (164). Pterygotes, *Myzus persicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. Portugal: nr. Trofa.
- 1601 I Majchrowicz (170). Apterygotes, *Myzus* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. Spain: nr. St. Amalia.
- 1602 I Majchrowicz (172). Apterygotes, *Myzus* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. Spain: nr. St. Amalia.
- 1603 I Majchrowicz (178). Apterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. Spain: nr. St. Amalia.
- 1604 I Majchrowicz (201). Apterygotes, *Sitobion* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1605 I Majchrowicz (211). Pterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1606 I Majchrowicz (216). Apterygotes, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1607 I Majchrowicz (224). Apterygotes, *Macrosiphum* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1609 I Majchrowicz (230). Apterygotes, *Acyrtosiphon pisum* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1610 I Majchrowicz (236). Apterygotes, *Aphidula* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1611 I Majchrowicz (246). Apterygotes, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1612 I Majchrowicz (251). Apterygotes, *Macrosiphum* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1613 I Majchrowicz (257). Pterygotes, *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1615 I Majchrowicz (263). Apterygotes, *Aphidula* sp. [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1616 I Majchrowicz (269). Apterygotes, *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.

- 1617 I Majchrowicz (275). Apterygotes, *Brevicoryne brassicae* [Homoptera: Aphididae]. Acc'd 19 Sep 84. France: La Minière.
- 1618 I Majchrowicz (260 4.08). Acc'd 19 Sep 84.
- 1695 IL Sivcev (217). Alate, [Homoptera: Aphididae] on cabbage. 10 Jul 84. Yugoslavia: PKB Commune, E. Belgrade.
- 1696 IL Sivcev (R-1). Alate, [Homoptera: Aphididae] on roses. 7 Jun 84. Yugoslavia: laboratory, Zemun, Belgrade.
- 1784 IL Sivcev (281). Alate, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 8 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.
- 1785 IL Sivcev (278). Alate, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 8 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.
- 1786 IL Sivcev (271). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 8 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.
- 1824 IL Sivcev (V-11). 4th instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Veternik.
- 1825 IL Sivcev (F-19). 4th instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Futog.
- 1826 IL Sivcev (F-34). 3rd instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Futog.
- 1827 IL Sivcev (F-30). 3rd instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 11 Oct 84. Yugoslavia: Futog.
- 1981 TJ Poprawski (0184). Nymph, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.
- 1985 TJ Poprawski (0188). Nymph, *Aphis fabae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.
- 1986 TJ Poprawski (0189). Nymph, *Macrosiphum rosae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.
- 1987 TJ Poprawski (0190). Nymph, *Macrosiphum rosae* [Homoptera: Aphididae]. Acc'd 25 Sep 85. France: La Minière.
- 2016 IL Sivcev (21/85). [Homoptera: Aphididae] on *Cyathium intibus*. 3 Jul 85. Yugoslavia: Zemun, Belgrade.
- 2017 IL Sivcev (74/85). *Acyrtosiphon pisum* [Homoptera: Aphididae] on pea. 5 Jul 85. Yugoslavia: Micunovo, Vovvodina.
- 2018 IL Sivcev (76/85). *Acyrtosiphon pisum* [Homoptera: Aphididae] on pea. 5 Jul 85. Yugoslavia: Micunovo, Vovvodina.
- 2019 IL Sivcev (63/85). *Aphis fabae* [Homoptera: Aphididae] on poppy. 5 Jul 85. Yugoslavia: Micunovo, Vovvodina.
- 2020 IL Sivcev (65/85). *Aphis fabae* [Homoptera: Aphididae] on poppy. 5 Jul 85. Yugoslavia: Micunovo, Vovvodina.
- 2085 TJ Poprawski (0191). Nymph, *Myzus persicae* [Homoptera: Aphididae] in alfalfa field. Acc'd 18 Feb 86. Spain: Ciudad Real.
- 2086 TJ Poprawski (0193). Nymph, *Myzus persicae* [Homoptera: Aphididae] in alfalfa field. Acc'd 18 Feb 86. Spain: Ciudad Real.
- 2108 IL Sivcev (174/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 14 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2109 IL Sivcev (184/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 14 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2110 IL Sivcev (185/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 14 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2111 IL Sivcev (228/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 21 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2112 IL Sivcev (229/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 21 Oct 86. Yugoslavia: Zemun, Belgrade.
- 2114 IL Sivcev (271/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2115 IL Sivcev (280/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2116 IL Sivcev (282/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2117 IL Sivcev (284/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2118 IL Sivcev (291/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2119 IL Sivcev (294/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2120 IL Sivcev (297/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2121 IL Sivcev (301/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2122 IL Sivcev (304/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 30 Oct 85. Yugoslavia: Zemun, Belgrade.
- 2123 IL Sivcev (198/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 17 Oct 85. Yugoslavia: Bijeljina, Bosnia and Hercegovina.

- 2124 IL Sivcev (249/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 25 Oct 85. Yugoslavia: Futog.
- 2128 IL Sivcev (261/85). *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 25 Oct 85. Yugoslavia: Futog.
- 2280 IL Sivcev (46/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2293 IL Sivcev (53/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2298 IL Sivcev. [Homoptera: Aphididae]. Acc'd 18 Nov 86. Yugoslavia: PKB commune, Zemun, Belgrade.
- 2583 K Hural (HG7202). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2584 K Hural (HG7203). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2585 K Hural (HG7204). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2587 K Hural (HG7207). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2588 K Hural (HG7208). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2589 K Hural (HG7209). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2591 K Hural (HG72011). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2592 K Hural (HG72012). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2593 K Hural (HG72013). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2594 K Hural (HG72014). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 20 Jul 88. USA: Lansing, New York.
- 2754 K Hural (Au-7). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.
- 2755 K Hural (FR-14). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.
- 2756 K Hural (Ma-1). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 11 Jul 89. USA: Malone, New York.
- 2757 K Hural (Au-15). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2758 K Hural (FR-7). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.
- 2760 K Hural (Au-8). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.
- 2761 K Hural (Au-6). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.
- 2762 K Hural (Au-1). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.
- 2763 K Hural (FR-12). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.
- 2766 K Hural (Au-10). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2767 K Hural (Au-14). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2768 K Hural (Au-11). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2769 K Hural (Au-21). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2773 K Hural (FR-4). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.
- 2781 K Hural (Au-20). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2782 K Hural (Fe-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 11 Jul 89. USA: Malone, New York.
- 2783 K Hural (Ma-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 11 Jul 89. USA: Malone, New York.
- 2784 K Hural (Au-17). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2837 K Hural (Au-28). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.
- 2838 K Hural (Au-26). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.
- 2839 K Hural (Au-27). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.
- 2840 K Hural (FR-16). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.

- 2842 K Hural (FR-18). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2844 K Hural (FR-19). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2845 K Hural (FR-20). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2846 K Hural (FR-21). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2847 K Hural (Au-29). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.
- 2848 K Hural (Au-24). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 7 Jun 89. USA: Aurora, New York.
- 2851 K Hural (FR-10). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.
- 2852 K Hural (FR-1). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.
- 2853 K Hural (FR-22). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2854 K Hural (Au-4). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 24 May 89. USA: Aurora, New York.
- 2855 K Hural (Au-30). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Aurora, New York.
- 2856 K Hural (MP-2). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Jun 89. USA: Ithaca, New York.
- 2865 K Hural (FR-23). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2866 K Hural (FR-24). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2867 K Hural (FR-25). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2868 K Hural (EW-5). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 30 May 89. USA: Trumansburg, New York.
- 2870 K Hural (FR-8). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 26 May 89. USA: Ithaca, New York.
- 2872 K Hural (FR-26). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 2873 K Hural (MP-5). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 16 Jun 89. USA: Ithaca, New York.
- 2874 M Feng (MD8930). *Metopolophium dirhodum* [Homoptera: Aphididae]. Jul 89. USA: Parma, Idaho.
- 2875 M Feng (MD8931). *Metopolophium dirhodum* [Homoptera: Aphididae]. Jul 89. USA: Parma, Idaho.
- 2876 M Feng (MD8932). *Metopolophium dirhodum* [Homoptera: Aphididae]. Jul 89. USA: Parma, Idaho.
- 3081 SP Wraight. *Diuraphis noxia* [Homoptera: Aphididae]. 18 Jul 90. USA: irrigated barley field, Piedmont Organic Produce Farm, Wellington, Colorado.
- 3082 SP Wraight. *Diuraphis noxia* [Homoptera: Aphididae]. 28 Jun 90. USA: non-irrigated barley field, George Varra farm, Fort Collins, Colorado.
- 3126 G Mercadier and TJ Poprawski (9014). *Diuraphis noxia* [Homoptera: Aphididae] on *Hordeum murinum*. 10 May 90. France: Montpellier, Hérault.
- 3174 G Mercadier and TJ Poprawski (9015). *Diuraphis noxia* [Homoptera: Aphididae] on wheat. 11 May 90. France: Montpellier, Hérault.
- 3175 G Mercadier and TJ Poprawski (9016). *Diuraphis noxia* [Homoptera: Aphididae] on *Agropyron repens*. 11 May 90. France: Montpellier, Hérault.
- 3234 I Majchrowicz (28). *Acyrtosiphon pisum* [Homoptera: Aphididae] on pea. Jul 91. USA: Morgan Farm, Mt. Vernon, Washington.
- 3237 I Majchrowicz (32). *Acyrtosiphon pisum* [Homoptera: Aphididae] on pea. Jul 91. USA: Dave Boon, Mt. Vernon, Washington.
- 3238 I Majchrowicz (37). *Aphis fabae* [Homoptera: Aphididae] on pineapple weed. Jul 91. USA: Morgan Farm, Mt. Vernon, Washington.
- 3240 I Majchrowicz (58). *Acyrtosiphon pisum* [Homoptera: Aphididae] on bean. 31 Jul 91. USA: garden nr. University of Idaho, Moscow, Idaho.
- 3241 I Majchrowicz (83). *Aphis fabae* [Homoptera: Aphididae] on *Chenopodium album*. 10 Aug 91. USA: nr. cages, Yakima, Washington.
- 3248 DC Steinkraus (1). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.
- 3249 DC Steinkraus (2). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.
- 3250 DC Steinkraus (5). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.
- 3251 DC Steinkraus (6). *Myzus persicae* [Homoptera: Aphididae] on turnip greens. 28 Nov 90. USA: Washington County, Arkansas.
- 3365 N Underwood ← SP Wraight. *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring wheat. 9 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.

- 3366 N Underwood ← SP Wraight. *Schizaphis graminum* [Homoptera: Aphididae] on late-sown spring wheat. 5 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.
- 3367 N Underwood ← SP Wraight. *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring wheat. 5 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.
- 3410 I Majchrowicz (71). *Aphis* sp. [Homoptera: Aphididae] on *Tanacetum vulgare* L. 8 Aug 91. USA: Bellingham, Washington.
- 3411 I Majchrowicz (8) ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.
- 3412 I Majchrowicz ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.
- 3459 I Majchrowicz (10) ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.

Pandora nouri (Remaudière & Hennebert) Humber
[Zygomycetes: Entomophthorales]

- 199 [CSIRO EM652] RT Mietkiewski. [Homoptera: Aphididae] on potato. 1 Sep 77. USA: Rogers Farm, Stillwater, Maine.
- 362 CSIRO (EM538) ← R Teakle. *Acyrtosiphon kondoi* [Homoptera: Aphididae]. Rec'd 1979. Australia: Gatton, Queensland.
- 366 [IPLB 1066] CSIRO (EM542) ← JP Latgé. *Theorhaphis maculata* [Homoptera: Aphididae]. Rec'd 22 Jan 79. USA.

Pandora nr. delphacis
[Zygomycetes: Entomophthorales]

- 2132 DG Holdom (180286). [Hemiptera: Miridae]. 18 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2146 DG Holdom (100286-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 10 Feb 86. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.

Pandora nr. echinospora (Thaxter) Humber
[Zygomycetes: Entomophthorales]

- 138 RG Kenneth (3098) ← S Bitton. [Diptera] on citrus leaf. Israel: Bet Dagan, Hamerkaz.

***Penicillium* sp.**
[Hyphomycetes]

No species of this genus have been satisfactorily demonstrated to be a primary pathogen of insects. Its presence on or in insect cadavers should be interpreted as necrophytic or accidental.

- 2643 DW Roberts ← VLRM Benassi. *Orthezia praelonga* [Homoptera: Ortheziidae]. 12 Sep 88. Brazil: Linhares, Espírito Santo.

- 2834 AE Hajek ← K Tatman (MD97#18). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 89. USA: Baltimore County, Maryland.
- 2836 AE Hajek ← K Tatman (MD110#28). *Lymantria dispar* [Lepidoptera: Lymantriidae]. 19 Jun 89. USA: Baltimore County, Maryland.
- 2950 [CP 278] SP Wraight ← E Dias Quintela. *Chalcodermus bimaculatus* [Coleoptera: Curculionidae]. 23 Jun 89. Brazil: CNPAF, Goiânia, Goiás.
- 3036 W Mechaber (weevil#2272). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Vaccinium angustifolium*. 20 May 90. USA: Carver, Massachusetts.

Penicillium thomii Maire
[Hyphomycetes]

- 2056 [NRRL A-27471] GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Phialophora malorum (Kidd & Beaumont) McColloch
[Hyphomycetes]

- 2072 GC Carroll (RSRS-24/68). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Phoma cava Schulzer
[Hyphomycetes]

- 2071 GC Carroll (HO-O-Hatch VIII). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Podonectria coccicola Petch

- 3736 AY Rossman ← ME Palm ← Marsicano. 26 Mar 92. USA: Kissimmee, Florida.

Polycephalomycetes formosus Kobayasi
[Hyphomycetes]

- 1424 S Balazy (1431). Larva, *Calosoma* sp. [Coleoptera: Carabidae] on a deciduous forest floor. 29 Aug 81. Poland: Wielkopolski National Park.

Pseudogibbellula formicarum (Mains) Samson & Evans
[Hyphomycetes]

- 2913 CBS (433.73) ← HC Evans. [Homoptera: Cercopidae] on leaf of *Theobroma cacao*. 1973. Ghana: Tafo, Eastern.

***Saprolegnia* sp.**
[Oomycetes: Saprolegniales]

- 179 I MacDaniel. Larva, [Diptera: Simuliidae]. 18 Jun 77. USA: Little River, South Penobscot, Maine.
- 180 I MacDaniel. Larva, [Diptera: Simuliidae]. 18 Jun 77. USA: Little River, South Penobscot, Maine.

Schizangiella sp.

[Zygomycetes: Entomophthorales]

- 2237 R Blaschke (1). *Elaphe* sp. [Squamata: Colubridae] from granuloma in gut. Rec'd 30 Sep 86. Germany: Dresden.
- 2239 R Blaschke (14). *Elaphe* sp. [Squamata: Colubridae] from granuloma in gut. Acc'd 30 Sep 86. Germany: Dresden.

Schizangiella serpentis Humber (sp. nov., unpublished)

[Zygomycetes: Entomophthorales]

- 203 W Kaplan. Female adult, *Crotalus horridus* [Squamata: Viperidae]. May 74. USA: Baltimore Zoological Park, Baltimore, Maryland.

Scopulariopsis sp.

[Hyphomycetes]

- 2169 BN Muthappa (PNG 12725). [Coleoptera: Curculionidae]. Rec'd 12 May 86. Papua New Guinea.
- 2255 TJ Poprawski (8628). Larva, *Lymantria dispar* [Lepidoptera: Lymantriidae] on oak tree. 7 Jul 86. France: Porto-Vecchio, Corsica.
- 2327 TJ Poprawski (8651). Nymph, *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae] on potato. 6 Nov 86. France: Cognac, Charente.
- 2328 TJ Poprawski (8652). Pupa, *Lucilia illustris* [Diptera: Calliphoridae] on chicken dung. 16 Oct 86. France: Béhoust, Yvelines.
- 3189 GW Riethmacher (B43c). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 3 May 90. Philippines: La Trinidad, Benguet.
- 3203 GW Riethmacher (EB10). *Plutella xylostella* [Lepidoptera: Plutellidae]. 12 Mar 90. Philippines: La Trinidad, Benguet.

Sorospora sp.

[Hyphomycetes]

- 377 JE Henry (118). ?*Melanoplus* sp. [Orthoptera: Acrididae]. Rec'd Jul 80. USA: Montana.

Sorospora uvella (Krassiltschik) Giard

[Hyphomycetes]

Sorospora is the chlamydosporic state of fungi whose conidial states are classified as *Synghiocladium* species. Clumps of chlamydospores germinate and produce fasciculate synnemata bearing clusters of *Synghiocladium* phialides.

- 1123 PP Sikorowski ← J Kuhre. 4th instar larva, *Curculio caryae* [Coleoptera: Curculionidae]. 14 Dec 83. USA: West Helena, Arkansas.
- 1714 G Riba. Acc'd 6 Nov 84. France.
- 1856 DG Boucias. *Scapteriscus vicinus* [Orthoptera: Gryllotalpidae]. 1984. USA: Gainesville, Florida.

Sporodiniella umbellata Boedijn ex Evans & Samson

[Zygomycetes: Mucorales]

- 2895 [IMI 232971] CBS (195.77) ← HC Evans. *Umbonia* sp. [Homoptera: Membracidae]. 1974. Ecuador: Pichilingue.

Sporothrix sp.

[Hyphomycetes]

- 3142 AT Gillespie ← J Aagesen. *Thrips tabaci* [Thysanoptera: Thripidae] on cucumber. Rec'd 27 Nov 90. Denmark: Tåstrup, København.

Sporothrix insectorum de Hoog & Evans

[Hyphomycetes]

- 2909 CBS (770.73) ← HC Evans. *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana: Atewa Forest Reserve.
- 2918 CBS (756.73) ← HC Evans. *Paltothyreus tarsatus* [Hymenoptera: Formicidae]. 1973. Ghana: Atewa Forest Reserve. CULTURE EX TYPE.

Stachybotrys sp.

[Hyphomycetes]

- 2863 M Feng (SA8801). *Sitobion avenae* [Homoptera: Aphididae] on spring wheat. 19 Jun 88. USA: Wilder, Idaho.

Sterile mycelium

- 1353 S Balazy (1594). Rec'd 19 May 84. Poland.
- 2073 GC Carroll (CH-O-66/201). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.
- 3702 LA Lacey (060). Adult, [Homoptera: Cicadellidae]. 7 Apr 92. India: Padappai.
- 3703 LA Lacey (008A). Adult, [Homoptera: Aphididae]. 7 Mar 92. Pakistan: Lahore.
- 3705 LA Lacey (015A). Adult, [Homoptera: Aphididae]. 7 Mar 92. Pakistan: Lahore.
- 3710 LA Lacey (037A) ← A Kisk. Adult, [Homoptera: Aleyrodidae]. 18 Dec 91. Spain.
- 3711 LA Lacey (041A) or (041A). Adult, [Homoptera: Aleyrodidae]. 17 Mar 91. Nepal: Katmandu.
- 3712 LA Lacey (019A). Adult, [Homoptera: Aphididae]. 7 Mar 92. Pakistan: Lahore.

Stilbella buquetti (Montagne & Robin) Samson & Evans

[Hyphomycetes]

- 2915 CBS (511.88). 1988.
- 2917 CBS (999.73). 1973.

***Strongwellsea castrans* Batko & Wiser**
[Zygomycetes: Entomophthorales]

Strains are provided as vegetative protoplasts in liquid tissue culture medium. No sustainable growth of walled hyphae, conidia, or resting spores has been produced by cultures.

- 3282 J Eilenberg (KVL 62). *Delia radicum* [Diptera: Anthomyiidae]. 8 Sep 88. Denmark: Roskilde.
3485 J Eilenberg (KVL 84). *Delia radicum* [Diptera: Anthomyiidae]. Aug 91. Denmark: Slangerup, Frederiksborg.

***Tilachlidium* sp.**
[Hyphomycetes]

- 2415 M Shimazu (F-545). [Coleoptera: Elateridae]. 14 Jul 86. Japan: Hachioji, Tokyo Prefecture.

***Tilletiopsis* sp.**
[Hyphomycetes]

These strains were probably accidental contaminants of brown planthoppers. This genus is usually found only among phylloplane fungi and is not otherwise known to be entomopathogenic.

- 527 DW Roberts (82880-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: Chainat Rice Exp. Sta., N of Bangkok, Khlong Luang.
572 DW Roberts (82880-2). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: Khlong Luang.
573 DW Roberts (82880-1). *Nilaparvata lugens* [Homoptera: Delphacidae]. 28 Aug 80. Thailand: Khlong Luang.

***Tolypocladium cylindrosporum* Gams**
[Hyphomycetes]

- 705 GG Soares. *Aedes sierrensis* [Diptera: Culicidae]. USA: California.
841 JS Pillai. *Aedes australis* [Diptera: Culicidae]. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
961 [CBS ?719.70; CCFC DAOM 183952] UAMH (?4995) or (4563) ← J Weiser ← JS Pillai. [Diptera: Culicidae]. Rec'd 9 Sep 83. Czechoslovakia.
962 [ATCC 42438; CCFC DAOM 167325] UAMH (4592) ← J Bissett (737). Soil sample SV113. 2 Jun 71. Canada: Bromus site, alpine eutric brunisol, grass slope, elev. 1900 m, Mt. Allen, Kananaskis Valley, Alberta.
963 [CCFC DAOM 167176] UAMH (4593) ← S Visser. Soil. Aug 76. Canada: spruce-fir forest, elev. 5500-6000 ft, nr. Luscar, Alberta.
976 [GCRI 131-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. Acc'd 17 Oct 83. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
1027 [GCRI 130-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. 1982. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.

- 1028 [GCRI 132-82] RA Hall ← JS Pillai. [Diptera: Culicidae]. 1982. New Zealand: Quoin Pt., Otago Peninsula, nr. Dunedin, South Island.
1580 GG Soares (Tc4c). *Aedes sierrensis* [Diptera: Culicidae]. Acc'd 17 Sep 84. USA: Novato, California.
2777 T Steenberg (186). [Lepidoptera: Noctuidae]. 6 Jun 89. Denmark.
2778 T Steenberg (187). [Lepidoptera: Noctuidae]. 19 Jun 89. Denmark.
2911 CBS (276.82) ← GG Soares. [Diptera: Culicidae]. 1982. New Zealand.
2912 CBS (989.73) ← LP Kish. *Plecia nearctica* [Diptera: Bibionidae]. 1973. USA: Florida.
2920 CBS (718.70). Peat soil. 1970. England: northern Pennines (Moorhouse). CULTURE EX TYPE.
3392 CCFC (DAOM 180479) ← G Dutzler (21). Soil. Rec'd 1 Oct 91. Nepal.
3393 CCFC (DAOM 180480) ← G Dutzler (26). Soil. Rec'd 1 Oct 91. Nepal.

***Tolypocladium extinguens* Samsen & Soares**
[Hyphomycetes]

- 2921 CBS (345.77) ← GJ Samuels. *Arachnocampa luminosa* [Diptera: Mycetophilidae]. 1977. New Zealand. CULTURE EX TYPE.

***Tolypocladium geodes* Gams**
[Hyphomycetes]

- 2684 J Weiser (R5) ← J Bissett. Acc'd 14 Feb 89.
3271 CCFC (DAOM 167321) ← J Bissett (384). Soil. Rec'd Apr 91. Canada: dry sedge meadow, elev. 2100 m, Mt. Allen, Kananaskis Valley, Alberta.
3272 CCFC (DAOM 167323) ← J Bissett (570). Soil. Rec'd Apr 91. Canada: bromus site, grass slope, elev. 1900 m, Mt. Allen, Kananaskis Valley, Alberta.
3273 CCFC (DAOM 167326) ← J Bissett (938). Soil sample SX133. Rec'd Apr 91. Canada: Bromus site, alpine eutric brunisol, grass slope, Mt. Allen, Kananaskis Valley, Alberta.
3274 [ATCC 56502] CCFC (DAOM 176470) ← A Carter. Soil. 19 Nov 76. Canada: predominantly white spruce woods, 29.7 km SSE of Sudbury, Ontario.
3275 CCFC (DAOM 191333) ← P Widden. Moorland soil, A1 horizon. Rec'd Apr 91. England: Gisburn Forest.
3276 CCFC (DAOM 191336) ← P Widden. Festuca grasslands, moorland soil. Rec'd Apr 91. England: elev. 1850 ft, Pennines (Moorhouse).

***Tolypocladium microsporium* (Jaap) Bissett**
[Hyphomycetes]

- 3431 CCFC (DAOM 191103) ← R Summerbell. Roots of *Cornus canadensis*. 6 Jun 82. Canada: Kirkland Lake, Ontario.

Tolypocladium niveum (Rostrup) Bissett
[Hyphomycetes]

- 616 [CCF 962] ATCC (18981) ← O Fassati. Rec'd 27 May 81. Czechoslovakia.
- 3277 CCFC (DAOM 64352) ← W Gams. Humus (alpine soil). Rec'd Apr 91. Austria: Obergurgl-Ötztal, Tirol.
- 3278 CCFC (DAOM 160594) ← V Behan. *Mycobates* sp. [Acari: Oribatidae]. Rec'd Apr 91. Canada: Frobisher Bay, Baffin Island, Northwest Territories.
- 3279 CCFC (DAOM 167175) ← S Visser. Humified organic material. Rec'd Apr 91. Canada: undisturbed spruce-fir forest, nr. Luscar, Alberta.
- 3280 CCFC (DAOM 167322) ← J Bissett (530). Soil sample A382. Rec'd Apr 91. Canada: Dryas site, Warcup soil plate, alpine meadow, elev. 2530 m, Mt. Allen, Kananaskis Valley, Alberta.
- 3281 CCFC (DAOM 198395) ← D Strongman. Pupa, [Diptera: Tachinidae]. Rec'd Apr 91. Canada: Acadia Forest Exp. Station, Fredericton, New Brunswick.
- 3320 CCFC (DAOM 63905) ← D Brewer. Slime from pulp & paper mill. Rec'd 30 Apr 91. Canada: Corner Brook, Newfoundland.
- 3321 [ARSEF 3397 (deaccessioned); J Bissett 88M-143] CCFC (DAOM 199924) ← D Perry (1602). *Choristoneura fumiferana* [Lepidoptera: Tortricidae] on spruce. Rec'd 30 Apr 91. Canada: Acadia Forest Exp. Station, Fredericton, New Brunswick.
- 3394 CCFC (DAOM 183955) ← L Ippolito (38-BI). Root of black spruce, clay soil. Rec'd 1 Oct 91. Canada: SW Burt Lake, Burt Twp., Timiskaming District, Ontario.
- 3395 [J Bissett 83M-38] CCFC (DAOM 185687) ← D Lahaie. Sediment 21m below surface of acidic lake. Rec'd 1 Oct 91. Canada: White Pine Lake, NW of Sudbury, Ontario.
- 3396 CCFC (DAOM 191338) ← P Widden (LP-177). Festuca grasslands, moorland soil, A1 horizon. Rec'd 1 Oct 91. England: elev. 2750 ft, Pennines (Moorhouse).
- 3398 CCFC (DAOM 210147) ← DS Abrahamson (5). Maple/beech/birch forest floor. Rec'd 1 Oct 91. USA: Mt. Clinton Rd., White Mountain National Forest, New Hampshire.
- 3432 CCFC (DAOM 167132) ← P Widden (M-105). Soil in *Pinus contorta* stand. Rec'd 29 Oct 91. Canada: Kananaskis Valley, Alberta.
- 3433 [ATCC 36654] CCFC (DAOM 180481) ← G Dutzler (94). Soil. Rec'd 29 Oct 91. Nepal.

Tolypocladium nubicola Bissett
[Hyphomycetes]

- 3434 CCFC (DAOM 167320) ← J Bissett (164). Soil sample A322. Rec'd 29 Oct 91. Canada: Dryas site, Warcup soil plate, alpine meadow, Mt. Allen, Kananaskis Valley, Alberta.

- 3435 CCFC (DAOM 167324) ← J Bissett (633). Soil sample V222. Rec'd 29 Oct 91. Canada: Dryas site, Warcup soil plate, alpine meadow, Mt. Allen, Kananaskis Valley, Alberta.

Tolypocladium parasiticum Barron
[Hyphomycetes]

- 3436 CCFC (DAOM 184880) ← GL Barron. Bdelloid rotifers in farm soil. Rec'd 29 Oct 91. Canada: Guelph, Ontario.

Tolypocladium tundrense Bissett
[Hyphomycetes]

- 3399 CCFC (DAOM 167133) ← P Widden (M-106). Raised beech soil. Rec'd 1 Oct 91. Canada: Devon Island, Northwest Territories.
- 3400 CCFC (DAOM 167134) ← P Widden (M-107). Soil. Rec'd 1 Oct 91. Canada: sedge meadow, Devon Island, Northwest Territories.
- 3401 CCFC (DAOM 191334) ← P Widden (LP-235). Festuca grasslands, moorland soil, A1 horizon. Rec'd 1 Oct 91. England: elev. 2450 ft, Pennines (Moorhouse).

Torrubiella homopterorum Humber & Rombach (sp. nov., unpublished)
[Pyrenomycetes: Clavicipitales]

- 2045 MC Rombach (161085-11) ← SB Ahn (E1-22). *Nilaparvata lugens* [Homoptera: Delphacidae]. 16 Oct 85. Korea: Gun-Wandi.

Torrubiella ratticaudata Rombach & Humber
[Pyrenomycetes: Clavicipitales]

- 1915 MC Rombach (11(ascosp.)). *Euophrys ?trivittata* [Araneida: Salticidae] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.
- 1916 MC Rombach (9(ext.myc.)). *Euophrys ?trivittata* [Araneida: Salticidae] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Trichoderma sp.
[Hyphomycetes]

- 1361 S Balazy (1599a). Rec'd 19 May 84. Poland.

Trichothecium sp.
[Hyphomycetes]

- 653 DW Roberts (100881-2). *Nephotettix bipunctata cincticeps* [Homoptera: Cicadellidae]. 8 Oct 81. PR China: Chansha, Hunan.
- 1217 TJ Poprawski (050A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 1 Jun 83. Italy: Acquapendente, Lazio.
- 1223 TJ Poprawski (060A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 7 Jun 83. Italy: Acquapendente, Lazio.

Trichothecium roseum Link:Fries
[Hyphomycetes]

- 1212 TJ Poprawski (042). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 25 May 83. Italy: Acquapendente, Lazio.
- 1226 TJ Poprawski (001A). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 18 May 83. Italy: Vetralla, Lazio.
- 1308 TJ Poprawski (044). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 23 May 83. Italy: Acquapendente, Lazio.
- 1639 TJ Poprawski (0136). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
- 1642 TJ Poprawski (0139). Nymph, *Adelphocoris* sp. [Hemiptera: Miridae]. 13 Jul 84. Austria: Burgenland.
- 2055 GC Carroll. Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.
- 3708 LA Lacey (035A) ← A Kisk. Adult, [Homoptera: Aleyrodidae]. 11 Dec 91. Spain.

Tritirachium isariae (Petch) de Hoog
[Hyphomycetes]

- 1425 S Balazy (1585a). Rec'd 19 May 84.

Unidentified

These fungi were accessioned without verified identifications. Many strains listed here will be reassigned to known taxa as quickly as the opportunity allows. Some strains are undescribed new species; some are sterile and may not be identifiable to a level lower than the class.

- 1013 J Aoki (Ent. 38) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.
- 1051 J Aoki (Ent. 39) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.
- 1356 [ARSEF 1420] S Balazy (1595c). Rec'd 19 May 84. Poland.
- 1415 S Balazy (1550). Larva, *Hibernia defoliaria* [Lepidoptera: Geometridae] attached to the underside of leaves in forest undergrowth. 22 May 83. Poland: Bialowieza National Park.
- 1417 S Balazy (1547b). Larva, *Hibernia defoliaria* [Lepidoptera: Geometridae] attached to the underside of leaves in forest undergrowth. 22 May 83. Poland: Bialowieza National Park.
- 1419 S Balazy (1451'). [Araneida] under a leaf of *Tussilago farfara* in a deciduous forest. 2 Aug 82. Poland: Wielkopolski National Park.
- 1420 [ARSEF 1356] S Balazy (1595c). Rec'd 19 May 84. Poland.
- 1421 S Balazy (1552). Adult, *Cratichneumon lanius* [Hymenoptera: Ichneumonidae] attached to the underside of a leaf. 21 May 83. Poland: Bialowieza National Park.
- 1423 S Balazy (1508m). Juveniles & adults, [Hemiptera] attached to underside of leaves of *Stachys silvaticus* in a leafy forest. 26 Jul 82. Poland: Wielkopolski National Park.
- 1634 [ARSEF 1667 (deaccessioned)] TJ Poprawski (0120). Nymph, [Coleoptera]. 27 Jun 84. France: Saint-Étienne du Bois, Loire.
- 1693 IL Sivcev (202). Alate, [Homoptera: Aphididae] on cabbage. 26 Jun 84. Yugoslavia: PKB Commune, E. Belgrade.
- 1694 IL Sivcev (216). Alate, [Homoptera: Aphididae] on cabbage. 10 Jul 84. Yugoslavia: PKB Commune, E. Belgrade.
- 1703 MC Rombach (E). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Acc'd 6 Nov 84. Philippines: IRRI, Los Baños, Manila.
- 1922 M Shimazu (FE2). [Diptera]. Summer 85. USA: Allegany State Park, Salamanca, New York.
- 2022 IL Sivcev (55/85). *Aphis fabae* [Homoptera: Aphididae] on poppy. 1985. Yugoslavia: Micunovo, Vovvodina.
- 2528 GC Carroll (VO25) ← R Radcliffe. Phylum Nemata, Class Secernemtia baited with barnyard soil. Winter 82. USA: Marcola, Oregon.
- 2555 DG Boucias (5788). Acc'd 7 Mar 88.
- 2563 JC Lord (Bartow C). *Anopheles* sp. [Diptera: Culicidae]. 8 Feb 88. USA: abandoned phosphate pit, Bartow, Florida.
- 2640 DW Roberts ← SB Alves (587). *Solenopsis invicta* [Hymenoptera: Formicidae]. Rec'd 23 Nov 88. Brazil: Cuiabá, Mato Grosso.
- 2746 GW Riethmacher (B10K). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 28 Feb 89. Philippines: La Trinidad, Benguet.
- 2747 GW Riethmacher (B4P). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 19 Jan 89. Philippines: La Trinidad, Benguet. [? *Gliocladium* sp.].
- 2752 GW Riethmacher (A1). *Plutella xylostella* [Lepidoptera: Plutellidae]. 14 Mar 89. Philippines: La Trinidad, Benguet. Arthroconidial hyphomycete.
- 2821 GW Riethmacher (E8). *Plutella xylostella* [Lepidoptera: Plutellidae]. 4 May 89. Philippines: La Trinidad, Benguet.
- 2999 SV Krueger (MF-Ec). *Rhizotrogus majalis* [Coleoptera: Scarabaeidae]. Feb 90. USA: Geneva, New York. [Hemiascomycete].
- 3122 G Mercadier and TJ Poprawski (8854 (first form)). [Homoptera: Aphididae] on *Bromus* sp. 10 Aug 88. France: Béhoust, Yvelines.
- 3123 K Ostrovská (53). *Lutzomyia* sp. [Diptera: Psychodidae]. Rec'd 3 Dec 91. Costa Rica: La Montana.
- 3124 K Ostrovská (54). *Lutzomyia* sp. [Diptera: Psychodidae]. Rec'd 3 Dec 91. Costa Rica: Nazareth, Guanacaste.

- 3125 G Mercadier and TJ Poprawski (9009). [Homoptera: Aphididae] on asparagus. 30 May 90. France: Béhoust, Yvelines.
- 3128 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 12 Oct 90. USA: greenhouse colony, Ithaca, New York.
- 3209 Yoder Bros. Inc. [Araneida] on azalea. Rec'd 27 Mar 92.
- 3227 M Nadeau (213). Adult, [Diptera: Simuliidae]. 1 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3228 M Nadeau (336). Adult, [Diptera: Simuliidae]. 17 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3229 M Nadeau (222). Adult, [Diptera: Simuliidae]. 19 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3230 M Nadeau (371). Adult, [Diptera: Simuliidae]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3231 M Nadeau (362). Adult, [Diptera: Simuliidae]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3232 M Nadeau (327). Adult, [Diptera: Simuliidae]. 4 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3233 M Nadeau (373). Adult, [Diptera: Simuliidae]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3235 M Nadeau (329). Adult, [Diptera: Simuliidae]. 4 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3236 M Nadeau (454). Adult, [Diptera: Simuliidae]. 11 Sep 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3239 I Majchrowicz (2) ← GL Nordin. *Myzus nicotinae* [Homoptera: Aphididae]. Rec'd 20 Sep 91. USA: Kentucky.
- 3242 M Nadeau (421). Adult, [Trichoptera]. 16 Aug 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3243 M Nadeau (386). Adult, [Trichoptera]. 31 Jul 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3244 M Nadeau (241). Adult, [Trichoptera]. 20 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3245 M Nadeau (231). Adult, [Diptera: Simuliidae]. 19 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3246 M Nadeau (240). Adult, [Diptera: Simuliidae]. 20 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3247 M Nadeau (228). Adult, [Diptera: Simuliidae]. 19 Jun 90. Canada: Réserve Faunique du Saint, Maurice, Québec.
- 3298 J Gutierrez Samperio (14) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3299 J Gutierrez Samperio (15) ← ERD Reyes. *Diatraea saccharalis* [Lepidoptera: Pyralidae] on sugar cane. 1987. Mexico: Colima.
- 3304 J Gutierrez Samperio (20) ← ERD Reyes. *Dialeurodes citri* [Homoptera: Aleyrodidae] on Citrus. 1990. Mexico: Tecmán, Colima.
- 3319 M Brownbridge (Perry 3). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91.
- 3368 N Underwood ← SP Wraight. *Metopolophium dirhodum* [Homoptera: Aphididae] on late-sown spring wheat. 9 Jul 91. USA: SW Idaho R/E Center, Parma, Idaho.
- 3374 MB von Wechmar ← JM Laubscher. *Rhopalosiphum padi* [Homoptera: Aphididae]. Sep 89. South Africa: (32.48 S; 18.53 E) Pools, South Western Cape, Cape Province. Virus contaminants: aphid lethal paralysis virus (ALPV) and *Rhopalosiphum padi* virus (RhPV); Family: Picornaviridae, (tentative genus: *Enterovirus*).
- 3378 K Ostrovska (3) ← PG Lawlor. *Lutzomyia* sp. [Diptera: Psychodidae]. Jul 91. Guatemala: Tical, Petén.
- 3380 K Ostrovska (6) ← GC Lanzaro. *Anopheles gambiae* [Diptera: Culicidae]. 24 Aug 91. Mali: inside houses, Werekla, Koulikoro.
- 3381 K Ostrovska (9) ← GC Lanzaro. *Anopheles gambiae* [Diptera: Culicidae]. 24 Aug 91. Mali: inside houses, Werekla, Koulikoro.
- 3413 K Ostrovska (20) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.
- 3417 K Ostrovska (26) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.
- 3419 K Ostrovska (29) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.
- 3420 K Ostrovska (31) ← MV Herrero. *Lutzomyia* sp. [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.
- 3421 K Ostrovska (33) ← MV Herrero. *Lutzomyia* sp. [Diptera: Psychodidae]. 23 Sep 91. Costa Rica: Brasilito, Guanacaste.
- 3422 K Ostrovska (34) ← MV Herrero. Male, *Lutzomyia longipalpis* [Diptera: Psychodidae]. 23 Sep 91. Costa Rica: Brasilito, Guanacaste.
- 3423 K Ostrovska (35). *Lutzomyia* sp. [Diptera: Psychodidae]. 21 Sep 91. Costa Rica: Nazareth, Guanacaste.
- 3424 K Ostrovska (36). *Lutzomyia* sp. [Diptera: Psychodidae]. 21 Sep 91. Costa Rica: Nazareth, Guanacaste.
- 3425 K Ostrovska (37). *Lutzomyia* sp. [Diptera: Psychodidae]. 21 Sep 91. Costa Rica: Nazareth, Guanacaste.

- 3426 K Ostrovska (40). Male, *Lutzomyia trapidoi* [Diptera: Psychodidae]. 4 Oct 91. Costa Rica: La Selva.
- 3427 K Ostrovska (42). *Lutzomyia* sp. [Diptera: Psychodidae]. 4 Oct 91. Costa Rica: La Selva.
- 3428 K Ostrovska (47). *Lutzomyia* sp. [Diptera: Psychodidae]. 4 Oct 91. Costa Rica: La Selva.
- 3440 [CATIE 4] TG Zoebisch. *Hypothenemus hampei* [Coleoptera: Scolytidae] on *Coffea arabica*. Rec'd 28 Oct 91. Nicaragua: Managua.
- 3466 CENARGEN (CG 6). Soil. 1990. Brazil: Pelotas, Rio Grande do Sul.
- 3467 CENARGEN (CG 134). Pupa, *Euselasia* sp. [Lepidoptera: Riodinidae]. 1988. Brazil: Rio Grande do Sul.
- 3468 CENARGEN (CG 135). Larva, *Euselasia* sp. [Lepidoptera: Riodinidae]. 1988. Brazil: Rio Grande do Sul.
- 3470 CENARGEN (CG 182). Soil. Jun 90. Brazil: Campo Grande, Mato Grosso.
- 3471 CENARGEN (CG 304). *Sternechus subsignatus* [Coleoptera: Curculionidae]. 1990. Brazil: Passo Fundo, Rio Grande do Sul.
- 3473 CENARGEN (CG 309). Soil. 1990. Brazil: Salto da Divisa, Mato Grosso.
- 3474 CENARGEN (CG 310). Soil. 1990. Brazil: Jequiê, Bahia.
- 3475 CENARGEN (CG 188). Soil. 1991. Brazil: Brasília, Federal District.
- 3476 CENARGEN (CG 189). Soil. 1991. Brazil: Brasília, Federal District.
- 3477 CENARGEN (CG 187). Soil. 1990. Brazil: Pelotas, Rio Grande do Sul.
- 3478 CENARGEN (CG 311). *Aracanthus* sp. [Coleoptera: Curculionidae]. 1990. Brazil: Santa Maria, Rio Grande do Sul.
- 3535 J Hernández Ramírez (1). *Zulia vilior costarricensis* [Homoptera: Cercopidae]. Rec'd 23 Jan 92. Costa Rica.
- 3536 J Hernández Ramírez (2). *Prosapia simulans* [Homoptera: Cercopidae]. Rec'd 23 Jan 92. Costa Rica.
- 3560 M Brownbridge (R-28). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3567 M Brownbridge (HL-4). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 92. USA: Windham County, Vermont.
- 3568 M Brownbridge (HL-5). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 92. USA: Windham County, Vermont.
- 3569 M Brownbridge (HL-6). Pupa, *Lambdina athasaria* [Lepidoptera: Geometridae]. Rec'd 4 Feb 92. USA: Windham County, Vermont.
- 3570 M Brownbridge (WFT-3). *Frankliniella occidentalis* [Thysanoptera: Thripidae] on chrysanthemum. Aug 91. USA: greenhouse, Burlington, Vermont.
- 3571 M Brownbridge (S-1). Soil. 12 Jan 92. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3624 CENARGEN (CG 186). Soil. Jun 90. Brazil: Pelotas, Rio Grande do Sul.
- 3625 CENARGEN (CG 193). Soil. Oct 90. Brazil: Pelotas, Rio Grande do Sul.
- 3626 CENARGEN (CG 262). Soil. May 91. Brazil: Tocantins, Goiás.
- 3627 CENARGEN (CG 263). Soil. Jun 91. Brazil: Coronel Musto, Mato Grosso.
- 3628 CENARGEN (CG 264). Soil. Jun 91. Brazil: Itacambary, Mato Grosso.
- 3629 CENARGEN (CG 265). Soil. May 91. Brazil: Porto Nacional, Goiás.
- 3630 CENARGEN (CG 266). Soil. May 91. Brazil: Balsas, Maranhão.
- 3631 CENARGEN (CG 268). Soil. Jun 91. Brazil: Mato Grosso.
- 3632 CENARGEN (CG 269). Soil. Jun 91. Brazil: Coronel Musto, Mato Grosso.
- 3633 CENARGEN (CG 270). Soil. May 91. Brazil: Araguaína, Goiás.
- 3634 CENARGEN (CG 271). Soil. May 91. Brazil: Teresina, Piauí.
- 3635 CENARGEN (CG 275). Soil. May 91. Brazil: Tasso Fragoso, Maranhão.
- 3636 CENARGEN (CG 308). Soil. Jun 90. Brazil: Sorriso, Mato Grosso.
- 3637 CENARGEN (CG 334). Soil. Oct 90. Brazil: Campinas, São Paulo.
- 3638 CENARGEN (CG 335). Soil. Jun 90. Brazil: Barra do Garça, Mato Grosso.
- 3639 CENARGEN (CG 345) ← MR Faria. Soil. Dec 91. Brazil: Minaçu, Goiás.
- 3640 CENARGEN (CG 346) ← MR Faria. Soil. Dec 91. Brazil: Minaçu, Goiás.
- 3641 CENARGEN (CG 347) ← MR Faria. Soil. Dec 91. Brazil: Minaçu, Goiás.
- 3642 CENARGEN (CG 348) ← MR Faria. Soil. Dec 91. Brazil: Minaçu, Goiás.
- 3643 CENARGEN (CG 349) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3644 CENARGEN (CG 350) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3645 CENARGEN (CG 351) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3646 CENARGEN (CG 352) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3647 CENARGEN (CG 353) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.

- 3648 CENARGEN (CG 354) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3649 CENARGEN (CG 355) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3650 CENARGEN (CG 356) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3651 CENARGEN (CG 357) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3652 CENARGEN (CG 358) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3653 CENARGEN (CG 359) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3654 CENARGEN (CG 360) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3655 CENARGEN (CG 361) ← MR Faria. Soil. Dec 91. Brazil: Minaçu, Goiás.
- 3656 CENARGEN (CG 362) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3657 CENARGEN (CG 363) ← MR Faria. Soil. Dec 91. Brazil: Colinas do Sul, Goiás.
- 3714 RA LeBrun ← J Hanula (C-5). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 1 Jul 91.
- 3715 RA LeBrun ← J Hanula (C-1). Adult, *Otiorhynchus sulcatus* [Coleoptera: Curculionidae]. Summer 91.
- 3719 RA LeBrun ← J Hanula (W-2). Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. Summer 91.
- 3722 Larva, *Popillia japonica* [Coleoptera: Scarabaeidae]. 21 Jun 91. USA: Groton, Connecticut.
- 3724 S DeFazio. *Leptinotarsa decemlineata* [Coleoptera: Chrysomelidae]. Rec'd 18 May 92.
- 3725 P Narayanasamy (30). Rec'd 28 May 92.
- 3726 P Narayanasamy (33). Rec'd 28 May 92.
- 3727 P Narayanasamy (31). Rec'd 28 May 92.
- 3728 P Narayanasamy (34). Rec'd 28 May 92.
- 3729 P Narayanasamy (32). Rec'd 28 May 92.
- 3735 P Timper (C11). *Aphelenchoides* sp. [Aphelenchida: Aphelenchoididae]. Apr 92. USA: CU land, Rt. 366, Ithaca, New York.
- Verticillium* sp.
[Hyphomycetes]
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- 1401 TJ Poprawski (089). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 83. France.
- 1402 TJ Poprawski (090). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 83. France.
- 1403 TJ Poprawski (091). Egg, *Hypera postica* [Coleoptera: Curculionidae]. Jun 83. France.
- 2323 TJ Poprawski (8647). *Myzus* nr. *persicae* [Homoptera: Aphididae]. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.
- 2324 TJ Poprawski (8648). *Myzus* nr. *persicae* [Homoptera: Aphididae]. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.
- 2325 TJ Poprawski (8649). Adult, *Myzus* nr. *persicae* [Homoptera: Aphididae] on tobacco. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.
- 2326 TJ Poprawski (8650). Adult, *Myzus* nr. *persicae* [Homoptera: Aphididae] on tobacco. 14 Nov 86. France: greenhouse, Béhoust, Yvelines.
- 2329 TJ Poprawski (8654). Adult, [Diptera: Tipulidae] on cotton. 29 Oct 86. France: greenhouse, Béhoust, Yvelines.
- 2332 M Feng (SA8601). *Sitobion avenae* [Homoptera: Aphididae] on spring wheat. 25 Jul 86. USA: Apple Valley Rd. & Klahr Rd., Parma, Idaho.
- 2414 K Narayanan (16). [Diptera]. Acc'd 6 May 87. India.
- 2810 GW Riethmacher (B18b). Soil, using *Tenebrio molitor* [Coleoptera: Tenebrionidae] as a trap. 9 Jun 89. Philippines: La Trinidad, Benguet.
- 2822 SR Sánchez Peña (3). Pupa, [Lepidoptera]. Jul 87. Mexico: elev. 2900 m, Pseudotsuga-Abies forest, Pueblo Nuevo, Durango.
- 2832 SR Sánchez Peña (2). [Coleoptera]. Jul 87. Mexico: elev. 2900 m, Pseudotsuga-Abies forest, Pueblo Nuevo, Durango.
- 3531 AE Hajek (93a). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 6 Jun 91. USA: Harris Lake, Monongalia County, West Virginia.
- 3539 M Brownbridge (B-1). Soil, using *Galleria mellonella* [Lepidoptera: Pyralidae] as a trap. 29 Nov 91. USA: oak stand, Leddy Park, Chittenden County, Vermont.
- 3547 M Brownbridge (R-6). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 20 Nov 91. USA: Laggis' sugar maple stand, Caledonia County, Vermont.
- 3549 M Brownbridge (R-11). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Thurber's sugar maple stand, Windham County, Vermont.
- 3550 M Brownbridge (R-12). White mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Goodhouse's sugar maple stand, Windsor County, Vermont.
- 3551 M Brownbridge (R-13). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Rowe's sugar maple stand, Caledonia County, Vermont.
- 3552 M Brownbridge (R-14). Yellow mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Preseau's sugar maple stand, Addison County, Vermont.
- 3556 M Brownbridge (R-22). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Washington County, Vermont.
- 3561 M Brownbridge (R-29). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Motyka's sugar maple stand, Orange County, Vermont.

Verticillium ?cephalosporum

[Hyphomycetes]

- 3035 W Mechaber (weevil#2209). Adult, *Anthonomus musculus* [Coleoptera: Curculionidae] on *Gaylussacia baccata*. 20 May 90. USA: Carver, Massachusetts.

Verticillium ?lecanii

[Hyphomycetes]

- 3315 M Brownbridge (DT-122). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.
- 3316 M Brownbridge (Williams). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: William's sugar maple stand, Orange County, Vermont.
- 3317 M Brownbridge (Perry 2). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.

Verticillium balanoides (Drechsler) Dowsett, Reid & Hopkin

[Hyphomycetes]

- 2483 [ATCC 46576; DAOM 185098] UAMH (5256) ← JA Dowsett. Phylum Nemata, Class Secernemtia. Acc'd 1 Dec 87. Canada: Manitoba.
- 3173 P Timper. *Aphelenchoides* sp. [Aphelenchida: Aphelenchoididae]. Rec'd 5 Nov 91. USA: potato field, Long Island, New York.
- 3350 P Timper ← BA Jaffee. Phylum Nemata, Class Secernemtia. Rec'd 19 Jun 91. USA: California.

Verticillium chlamydosporium (Preuss) Hassebrauk

[Hyphomycetes]

- 2218 [CNPAF 86-06-05-6; CP 214] DW Roberts ← DMF Capalbo. *Lagria vilosa* [Coleoptera: Lagriidae]. 5 Jun 86. Brazil: CNPAF, Goiânia, Goiás.

Verticillium cinnamomeum

[Hyphomycetes]

- 2399 MC Rombach (131286-1). 13 Dec 86. Indonesia.

Verticillium coccosporum (Drechsler) Gams

[Hyphomycetes]

- 2064 [ATCC 64259; CBS 789.85; NRRL A-27472] GC Carroll (E). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Verticillium fungicola (Preuss) Hassebrauk

[Hyphomycetes]

- 2065 GC Carroll (6(HO-O-Hatch VIII)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.

Verticillium fusisporum Gams

[Hyphomycetes]

- 923 BS Ekbohm (821007). *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. 7 Oct 82. Sweden: Uppsala.

Verticillium indicum (Petch) Gams

[Hyphomycetes]

- 2170 BN Muthappa (PNG 12719). *Anoplolepis longipes* [Hymenoptera: Formicidae]. Rec'd 12 May 86. Papua New Guinea.

Verticillium insectorum (Petch) Gams

[Hyphomycetes]

- 2235 LS Osborne (UK-3(2)). *Rhizococcus* sp. [Homoptera: Pseudococcidae] in soil. Acc'd 8 Sep 86.

Verticillium lecanii (Zimmerman) Viegas

[Hyphomycetes]

- 17 RS Soper ← JV Bell. USA.
- 204 RT Mietkiewski. *Macrosiphum euphorbiae* [Homoptera: Aphididae]. 6 Feb 78. USA: greenhouse, Orono, Maine.
- 310 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 311 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 312 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 313 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 314 H Beerman. Single spore isolate of Vertalec. 3 Jan 79. Lab. manipulation.
- 321 GR Buckingham. *Rhopalosiphum nymphaeae* [Homoptera: Aphididae]. Dec 78. USA: Crystal River, Gainesville, Florida.
- 555 P Kanagaratnam. *lecanium viridis* [Homoptera: Lecaniidae] on coffee on wet leaves under coconut. Dec 80. Sri Lanka: Bandirippuwa Est., Coconut Res. Inst, Lunuwila.
- 795 GA Kuter (182). Leaf litter under sugar maple. 1975. USA: Abraham's Woods, University of Wisconsin Arboretum, Green County, Wisconsin.
- 810 E Ballard. *Aedes triseriatus* [Diptera: Culicidae]. 20 Jul 82. USA: Berea, Kentucky.
- 811 RG Lawlor ← Tate and Lyle Ltd. Commercial formulation. Lab. manipulation.
- 900 Z Feng. *Ostrinia nubilalis* [Lepidoptera: Pyralidae]. Spring 83. USA: Batavia, New York.
- 972 [GCRI 55-81] RA Hall. *Trialeurodes vaporariorum* [Homoptera: Aleyrodidae]. Acc'd 17 Oct 83. Poland: glasshouse.
- 973 [GCRI 59-81] RA Hall. *Cossula cossus* [Lepidoptera: Cossidae]. Acc'd 17 Oct 83. Italy.
- 974 [GCRI 93-82a] RA Hall. [Homoptera: Aphididae]. Acc'd 17 Oct 83. Venezuela.
- 980 [GCRI 12-74] RA Hall. *Pulvinaria floccifera* [Homoptera: Coccidae]. Acc'd 17 Oct 83. Turkey.
- 991 J Aoki (Har. 2) ← K Kawakami. *Bombyx mori* [Lepidoptera: Bombycidae]. Rec'd 7 Nov 83. Japan: Suginami, Tokyo Prefecture.

- 994 J Aoki (Vert. 1). *Adoxophyes orana* [Lepidoptera: Tortricidae]. Feb 80. Japan: Iruma, Saitama Prefecture.
- 1002 J Aoki (Har. 1) ← M Shimazu. Rec'd 7 Nov 83. Japan: Chikugo, Fukuoka Prefecture.
- 1026 [GCRI 13-74] RA Hall. *Myzus persicae* [Homoptera: Aphididae]. 1974. India: Nagaich.
- 1029 [GCRI 8-73] RA Hall. *Saissetia oleae* [Homoptera: Coccidae]. 1973. Israel.
- 1032 [GCRI 80-82] RA Hall. *Cydia pomonella* [Lepidoptera: Tortricidae]. 1982. Australia.
- 1033 [GCRI 20-79] RA Hall. *Icerya purchasi* [Homoptera: Margarodidae]. 1979. Sri Lanka.
- 1102 [FPMI 708] KV Deseo (6). Larva, *Cossula cossus* [Lepidoptera: Cossidae]. Apr 81. Italy: Galliera.
- 1109 KV Deseo (29) ← Pasqualini. *Cydia pomonella* [Lepidoptera: Tortricidae]. Apr 82. Italy: Ravenna, Emilia-Romagna.
- 1328 TJ Poprawski (084). Egg, *Hypera postica* [Coleoptera: Curculionidae]. 17 May 83. France: Chichery.
- 1330 S Balazy (1428). Adult, [Hymenoptera: Ichneumonidae]. 1 Sep 81. Poland: Wielkopolski National Park.
- 1332 S Balazy (1480). 16 Mar 82. Poland: Forest Research Institute, Warsaw.
- 1333 S Balazy (1453c). Rec'd 19 May 84. Poland.
- 1334 S Balazy (1453k). Rec'd 19 May 84. Poland.
- 1335 S Balazy (1539). Larva, *Malachius bipustulatus* [Coleoptera: Melyridae] under the stem bark of *Quercus robur* in leafy forest. 24 Apr 83. Poland: Wielkopolski National Park.
- 1351 S Balazy (1592). Rec'd 19 May 84. Poland.
- 1352 S Balazy (1592b). Rec'd 19 May 84. Poland.
- 1357 S Balazy (1595d). Rec'd 19 May 84. Poland.
- 1367 S Balazy (1541) ← Wisniewski. [Acari: Oribatidae]. 29 Apr 83. Poland: coniferous forest, Zwierzyniec, nr. Grodzisk, Warsaw.
- 1505 I Majchrowicz (70) ← F Herard. Imago, *Pyrrhalta luteola* [Coleoptera: Chrysomelidae]. May 83. France: Entraigues, Vaucluse.
- 1774 RA Humber and MC Rombach. *Coccus viridis* [Homoptera: Coccidae] on coffee under coconut. 12 Nov 84. Sri Lanka: Coconut Research Institute, Lunuwila.
- 1787 IL Sivcev (287). 3rd instar larva, *Brevicoryne brassicae* [Homoptera: Aphididae] on cabbage. 1 Oct 84. Yugoslavia: PKB Commune, E. Belgrade.
- 2009 CIRPON ← M Yasem de Romero. *Toxoptera citricida* [Homoptera: Aphididae]. 1985. Argentina: Tucumán.
- 2066 GC Carroll (4(HO-O-Hatch VIII)). Egg mass, *Lymantria dispar* [Lepidoptera: Lymantriidae]. Rec'd Dec 85. USA: Dexter, Oregon.
- 2149 DG Holdom (030386-1). *Coccus viridis* [Homoptera: Coccidae] on coffee. 3 Mar 86. Indonesia: Yogyakarta, Java.
- 2150 DG Holdom (030386-2). *Coccus viridis* [Homoptera: Coccidae] on coffee. 3 Mar 86. Indonesia: Yogyakarta, Java.
- 2334 M Feng (SAVL8602). *Sitobion avenae* [Homoptera: Aphididae] on wheat. 25 Jun 86. USA: greenhouse, Moscow, Idaho.
- 2460 TJ Poprawski (8705) ← AJ Nasca (VL-T9). *Toxoptera citricida* [Homoptera: Aphididae]. 1984. Argentina: Tucumán.
- 2659 C Gopalakrishnan (30). [Homoptera: Aphididae]. Rec'd Nov 88. India.
- 2858 M Feng (ME8701). *Macrosiphum euphorbiae* [Homoptera: Aphididae] on field corn. Aug 87. USA: Parma, Idaho.
- 2859 M Feng (SA8701). *Sitobion avenae* [Homoptera: Aphididae] on winter wheat. 12 Jun 87. USA: Hwy 95 & Klahr Rd., Canyon County, Idaho.
- 2862 M Feng (DN8801). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 28 Jun 88. USA: Wilder, Idaho.
- 2877 M Feng (DN8802). *Diuraphis noxia* [Homoptera: Aphididae] on spring wheat. 28 Jun 88. USA: Wilder, Idaho.
- 2878 M Feng (DN8701). *Diuraphis noxia* [Homoptera: Aphididae] on wheat. 20 Jul 87. USA: greenhouse, Parma, Idaho.
- 2916 CBS (537.81) ← HC Evans. [Homoptera: Coccidae]. 1981. Ecuador: Galapagos Islands.
- 2923 MS Goettel. [Thysanoptera: Thripidae]. Rec'd 14 Dec 89. Canada.
- 2930 [IMI 331276] C Prior ← M Skinner. Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae] from soil. Rec'd 10 Jan 90. USA: sugar maple stand, Randolph, Vermont.
- 3000 MS Goettel. *Diuraphis noxia* [Homoptera: Aphididae] on barley. 23 Oct 89. Canada: nr. Writing-on-Stone Prov. Park, Warner County, Alberta.
- 3252 M Brownbridge (A). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.
- 3253 M Brownbridge (B). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.
- 3254 M Brownbridge (C). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.
- 3255 M Brownbridge (D). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: Allegheny Forest, Elk County, Pennsylvania.
- 3257 M Brownbridge (F). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 22 Feb 91. USA: Agway Research Farm, Tully, New York.
- 3258 M Brownbridge (G). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 28 Nov 90. USA: B. Bascone, Sullivan County, New Hampshire.

- 3259 M Brownbridge (I). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Krug, Massachusetts.
- 3260 M Brownbridge (J). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Krug, Massachusetts.
- 3261 M Brownbridge (K). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 7 Dec 90. USA: Williamstown, Massachusetts.
- 3262 M Brownbridge (L). Discolored larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 7 Dec 90. USA: Williamstown, Massachusetts.
- 3263 M Brownbridge (M). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Clark, Massachusetts.
- 3264 M Brownbridge (N). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.
- 3265 M Brownbridge (O). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.
- 3266 M Brownbridge (P). Brown larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 12 Dec 90. USA: Hamden, Connecticut.
- 3267 M Brownbridge (Q). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.
- 3268 M Brownbridge (R). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.
- 3269 M Brownbridge (S). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.
- 3270 M Brownbridge (T). Pink larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 17 Dec 90. USA: Woods Forest, Connecticut.
- 3314 M Brownbridge. Larva, [Coleoptera: Scarabaeidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.
- 3318 M Brownbridge (Perry 1). *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. Rec'd 19 Mar 91. USA: Perry's sugar maple stand, Orange County, Vermont.
- 3324 Yoder Bros. Inc. *Myzus persicae* [Homoptera: Aphididae] on carnation. Mar 91. USA: Salinas, California.
- 3418 K Ostrovska (27) ← MV Herrero. Male, *Lutzomyia saulensis* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.
- 3464 D Wilson ← T Whitham. Gall, *Pemphigus betae* [Homoptera: Aphididae] on narrowleaf cottonwood, *Populus angustifolia*. Rec'd 5 Nov 91. USA: Arizona.
- 3554 M Brownbridge (R-20.1). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Twitchell's sugar maple stand, Bennington County, Vermont.
- 3555 M Brownbridge (R-21). Larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 26 Nov 91. USA: Twitchell's sugar maple stand, Bennington County, Vermont.
- 3557 M Brownbridge (R-23). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3558 M Brownbridge (R-25). Pink mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Ralph's sugar maple stand, Warren, Vermont.
- 3559 M Brownbridge (R-27). Brown mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Begin's sugar maple stand, Windsor County, Vermont.
- 3562 M Brownbridge (R-31). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Motyka's sugar maple stand, Orange County, Vermont.
- 3563 M Brownbridge (R-34). Mummified larva, *Taeniothrips inconsequens* [Thysanoptera: Thripidae]. 2 Dec 91. USA: Motyka's sugar maple stand, Orange County, Vermont.
- 3600 AE Hajek (130). 5th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 18 Jun 91. USA: Salem Park, Ithaca, New York.
- 3601 AE Hajek (363). 6th instar larva, *Lymantria dispar* [Lepidoptera: Lymantriidae]. 17 Jun 91. USA: Sapsucker Woods, Ithaca, New York.
- 3683 AD Ali and M Brownbridge (F1.2) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3684 M Brownbridge (F2.3) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3685 M Brownbridge (F3.1) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3686 M Brownbridge (F4) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3687 M Brownbridge (F5) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3688 M Brownbridge (F6) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.

- 3689 M Brownbridge (F7) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3690 M Brownbridge (F9) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3691 M Brownbridge (F10) ← BL Parker and M Skinner. *Frankliniella occidentalis* [Thysanoptera: Thripidae] on greenhouse-grown cucumber. Mar 92. France: CTIFL Centre de Balandran, Bellegarde, Gard.
- 3701 LA Lacey (059) ← BL Parker. Adult, [Thysanoptera: Thripidae]. 26 Mar 92. France: Bellegarde, Gard.
- 3709 LA Lacey (036A) ← A Kisk. Adult, [Homoptera: Aleyrodidae]. 18 Dec 91. Spain.

Verticillium nr. *araneorum* (Petch) Gams
[Hyphomycetes]

- 1905 MC Rombach (14). [Araneida] on cacao. Apr 85. Solomon Islands: nr. Metapona, Guadalcanal.

Verticillium nr. *cephalosporium*
[Hyphomycetes]

- 1365 S Balazy (1615). Rec'd 19 May 84. Poland.

Verticillium psalliotiae Treschow
[Hyphomycetes]

- 2234 LS Osborne (UK-3(3)). *Rhizococcus* sp. [Homoptera: Pseudococcidae] in soil. Acc'd 8 Sep 86.
- 3416 K Ostrovska (25) ← MV Herrero. Female, *Lutzomyia sordelli* [Diptera: Psychodidae]. 22 Sep 91. Costa Rica: Santa Rosa National Park, Guanacaste.

Zoophthora sp.
[Zygomycetes: Entomophthorales]

- 3486 J Eilenberg (KVL 79). *Forficula auricularia* [Dermaptera: Forficulidae]. Sep 91. Denmark: Ølstykke, Frederiksborg.
- 3487 J Eilenberg (KVL 80). *Forficula auricularia* [Dermaptera: Forficulidae]. Sep 91. Denmark: Ølstykke, Frederiksborg.
- 3488 J Eilenberg (KVL 81). *Forficula auricularia* [Dermaptera: Forficulidae]. Sep 91. Denmark: Ølstykke, Frederiksborg.

Zoophthora anglica (Petch) Ben-Ze'ev & Kenneth
[Zygomycetes: Entomophthorales]

- 396 [ARSEF ?1377] S Keller (48). *Agriotes sputator* [Coleoptera: Elateridae]. 4 May 77. Switzerland.
- 916 S Keller (411). *Notosteira elongata* [Hemiptera: Miridae]. 25 Aug 82. Switzerland.
- 926 S Keller (412). *Notosteira elongata* [Hemiptera: Miridae]. 25 Aug 82. Switzerland.

- 1739 N Wilding (85). *Trechus quadristriatus* [Coleoptera: Carabidae]. 5 Sep 78. England: Rothamsted Experimental Station, Harpenden, Hertfordshire.
- 2505 J Eilenberg (KVL 12). *Agriotes sputator* [Coleoptera: Elateridae]. 2 Jun 86. Denmark: Brogaard, Faarevejle.

Zoophthora aphidis (Hoffman in Fresenius) Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

- 425 [ARSEF 467 (lost), 643 (lost); CSIRO EM740] S Keller (84). *Anoecia corni* [Homoptera: Aphididae]. Rec'd 6 Feb 80. Switzerland.

Zoophthora lanceolata (Keller) Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

- 426 [ARSEF ?468] S Keller (95). [Diptera: Nematocera]. Rec'd 6 Feb 80. Switzerland: Rickenbach.
- 458 [ARSEF ?426] S Keller (95) ← G Remaudière. [Diptera: Brachycera]. Oct 77. France.
- 469 S Keller (115). [Diptera: Nematocera]. Rec'd 27 May 80. Switzerland: Rickenbach.

Zoophthora occidentalis (Thaxter) Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

- 207 [CSIRO EM680] RT Mietkiewski. *Macrosiphum euphorbiae* [Homoptera: Aphididae] on potato. 20 Sep 77. USA: Rogers Farm, Stillwater, Maine.
- 2841 K Hural (FR-17). *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 5 Sep 89. USA: Ithaca, New York.
- 3027 H Firstencel. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 26 Jun 90. USA: Freese Rd., Ithaca, New York.
- 3028 H Firstencel. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 11 Jul 90. USA: Stevenson Rd., Ithaca, New York.
- 3029 H Firstencel. *Acyrtosiphon pisum* [Homoptera: Aphididae]. 25 Jun 90. USA: P-field, Aurora, New York.
- 3071 K Hural. *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 18 Sep 90. USA: Hoffman field #6G, Catherine, New York.
- 3073 K Hural. *Acyrtosiphon pisum* [Homoptera: Aphididae] on alfalfa. 18 Sep 90. USA: Hoffman field #7E, Catherine, New York.

Zoophthora phalloides (Batko) Humber, Ben-Ze'ev & Kenneth in Humber & Ben-Ze'ev
[Zygomycetes: Entomophthorales]

- 351 [IPLB 1116] CSIRO (EM541) ← JP Latgé. *Theorhaphis maculata* [Homoptera: Aphididae]. 9 Nov 78. Mexico.
- 352 [ARSEF 1869 (lost)] CSIRO (EM681) or (EM548) ← N Wilding (27). *Myzus rannaculinum* [Homoptera: Aphididae]. 12 May 78. France: Rennes, Ille-et-Vilaine.

- 2281 IL Sivcev (52/86). *Brevicoryne brassicae* [Homoptera: Aphididae]. 23 Jun 86. Yugoslavia: PKB commune, Zemun, Belgrade.
- Zoophthora phytonomi*** (Arthur) Humber, Ben-Ze'ev & Kenneth in Humber & Ben-Ze'ev [Zygomycetes: Entomophthorales]
- 113 [ARSEF 82 (lost); ATCC 34292; FPMI 951] RG Kenneth (3085) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. Apr 76. Israel: Sedé Eliyahu.
- 191 RG Kenneth (E.p. 2) or (3095) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Apr 76. Israel: Sedé Eliyahu.
- 192 RG Kenneth (3133) ← I Ben-Ze'ev. Larva, *Hypera variabilis* [Coleoptera: Curculionidae] on alfalfa. 2 Mar 77. Israel: Sedé Eliyahu.
- 202 [RG Kenneth 3178] AA Muka ← JP Kramer. *Hypera punctata* [Coleoptera: Curculionidae]. Jul 77. USA: Ithaca, New York.
- 2188 RJ Dysart. Larva, *Hypera punctata* [Coleoptera: Curculionidae]. 29 Apr 86. USA: Farmington, Delaware.
- 3342 S Roberts. Spring 91. USA: Eddyville, Illinois.
- 3343 S Roberts. Spring 91. USA: LaSalle County, Illinois.
- 3344 S Roberts. Spring 91. USA: Albion, Illinois.
- Zoophthora radicans*** (Brefeld) Batko [Zygomycetes: Entomophthorales]
- Major synonyms: *Entomophthora sphaerosperma* Frese-
nius, *Entomophthora radicans* Brefeld, *Erynia radicans*
(Brefeld) Humber, Ben-Ze'ev & Kenneth in Humber &
Ben-Ze'ev.
- 13 [FPMI 696] RS Soper ← CC Thompson. *Neodiprion tsugae* [Hymenoptera: Diprionidae]. Aug 71. USA: Prince of Wales Island, Alaska.
- 21 RS Soper ← DE Leonard (BBIV-20). Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1973. USA: Maine.
- 44 [FPMI 697; RG Kenneth 3045] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: Oxbow-Masardis, Maine.
- 45 JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: Oxbow-Masardis, Maine.
- 50 [FPMI 698] JD Vandenberg. Larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 16 Jun 75. USA: 0.1 mi N of Oxbow Rd. on Rt. 11, Oxbow-Masardis, Maine.
- 52 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 19 Jun 75. USA: 1.5 mi E of bridge at S. Bancroft, Bancroft Township, Maine.
- 68 [FPMI 688; IPLB 624] G Remaudière. *Tortrix viridiana* [Lepidoptera: Tortricidae]. 22 May 75. France: Forêt de Dourdan, Essonne.
- 72 [CSIRO EM532; FPMI 487] RG Kenneth (3046) ← ATCC (24493) ← DM MacLeod. *Lambdina fiscellaria fiscellaria* [Lepidoptera: Geometridae]. 7 Aug 82. Canada: Ming's Bight, Newfoundland.
- 75 [FPMI 700] RG Kenneth (E.s. 28) or (3060). *Brachycaudus amygdalinus* [Homoptera: Aphididae] on *Polygonum equisetiforme* [Polygonaceae]. 23 Jan 76. Israel: Rehovot, Central District.
- 80 RG Kenneth (C.o. 15) or (3081) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 76. Israel: alfalfa field, Sedé Eliyahu.
- 81 RG Kenneth (C.o. 10) or (3082) ← A Uziel. Larva, *Hypera variabilis* [Coleoptera: Curculionidae]. Mar 76. Israel: Sedé Eliyahu.
- 88 [CSIRO EM569] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 76. USA: nr. Selden Road, Haynesville Woods, Maine.
- 103 [CSIRO EM518, EM578, EM724; FPMI 701] RG Kenneth (E.s. 31) or (3100) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 11 Jul 76. Israel: Sedé Eliyahu.
- 104 [CSIRO EM553, EM725] RG Kenneth (E.s. 32) or (3101) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 11 Jul 76. Israel: Sedé Eliyahu.
- 105 [CSIRO EM726] RG Kenneth (E.s. 33) or (3102) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 106 [CSIRO EM727] RG Kenneth (E.s. 34) or (3103) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 107 [CSIRO EM554] RG Kenneth (E.s. 35) or (3104) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 108 [CSIRO EM728] RG Kenneth (E.s. 36) or (3105) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 109 [CSIRO EM729] RG Kenneth (E.s. 37) or (3106) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 110 [CSIRO EM555] RG Kenneth (E.s. 38) or (3107) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 111 [CSIRO EM556, EM730] RG Kenneth (E.s. 40) or (3109) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 112 [CSIRO EM561] RG Kenneth (E.s. 41) or (3110) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 25 Jul 76. Israel: Bet Dagan, Hamerkaz.
- 114 [CSIRO EM517] RG Kenneth (E.s. 29) or (3096) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. 11 Jul 76. Israel: Sedé Eliyahu.
- 126 [FPMI 702; IPLB 27] JP Latgé and G Remaudière (625). *Psyllida etrioza* [Homoptera: Psyllidae] on *Prunus pennsylvanicus* [Rosaceae]. 25 Aug 76. Canada: Chute aux Galets, Québec.

- 139 [CSIRO EM731] RG Kenneth (E.s. 30) or (3097) ← A Uziel. *Therioaphis maculata* [Homoptera: Aphididae]. Israel: Sedé Eliyahu.
- 141 [FPMI 687] JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Map reference: T4R10, Maine.
- 142 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 20 Jun 77. USA: Perham, Maine.
- 143 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Perham, Maine.
- 144 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Perham, Maine.
- 145 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 23 Jun 77. USA: Carroll, Maine.
- 146 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 21 Jun 77. USA: Map reference: T6R7, Shin Pond, Maine.
- 161 JD Vandenberg. Single spore reisolate of ARSEF 88. Jul 77. Lab. manipulation.
- 162 JD Vandenberg. Single spore reisolate of ARSEF 88. Jul 77. Lab. manipulation.
- 163 JD Vandenberg. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 1 Jul 77. USA: forest-upper, Perham, Maine.
- 183 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.
- 184 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.
- 185 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.
- 186 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.
- 187 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.
- 188 JD Vandenberg. Single spore reisolate of ARSEF 88. Sep 77. Lab. manipulation.
- 189 [ATCC 32797; FPMI 703] RG Kenneth (3044) or (2884) ← CBS (216.66) ← M Gustafsson. Phylum Arthropoda, Class Insecta. Rec'd 1977. Sweden.
- 195 RG Kenneth (3134) ← I Ben-Ze'ev. [Homoptera: Aphididae] on *Sonchus* sp. [Asteraceae]. 1977. Israel: citrus grove, Beir Yakov.
- 221 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Presque Isle, Maine.
- 222 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Presque Isle, Maine.
- 223 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Springfield, Maine.
- 224 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Springfield, Maine.
- 225 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Macwahoc, Maine.
- 226 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 24 Jun 78. USA: Macwahoc, Maine.
- 227 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 78. USA: Mamarda, Maine.
- 228 S Ignatowicz. Pupa, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 3 Jul 78. USA: Mamarda, Maine.
- 229 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.
- 230 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.
- 231 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.
- 232 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.
- 233 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 28 Jun 78. USA: Princeton, Maine.
- 234 S Ignatowicz. *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 78. USA: Oak Hill, Maine.
- 235 S Ignatowicz. 6th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 30 Jun 78. USA: Oak Hill, Maine.
- 237 [FPMI 704] P Dodge. *Therioaphis maculata* [Homoptera: Aphididae]. Aug 78. USA: Ithaca, New York.
- 238 [CSIRO EM560] P Dodge. *Therioaphis maculata* [Homoptera: Aphididae]. Aug 78. USA: Ithaca, New York.
- 239 P Dodge. *Therioaphis maculata* [Homoptera: Aphididae]. Aug 78. USA: Ithaca, New York.
- 359 [ARSEF 370, 823; CSIRO EM539; IPLB 844] RJ Milner ← ARSEF (103). *Therioaphis maculata* [Homoptera: Aphididae]. Australia: Armidale, New South Wales. Reisolated from field release at Armidale; forms protoplasts.
- 370 [ARSEF 359, 823; CSIRO EM539; IPLB 844] RJ Milner ← ARSEF (103). *Therioaphis maculata* [Homoptera: Aphididae]. Australia: Armidale, New South Wales. Reisolated from field release at Armidale.
- 379 [IPLB 1118] CSIRO (EM540) ← JP Latgé. *Therioaphis maculata* [Homoptera: Aphididae]. 9 Nov 78. Mexico.

- 388 S Keller (214). [Diptera]. Rec'd 3 Oct 79. Switzerland: Zürich.
- 389 S Keller (217). *Dicyphus pallidus* [Hemiptera: Miridae]. Rec'd 3 Oct 79. Switzerland: Zürich.
- 404 [FPMI 705] S Keller (59). Adult, [Lepidoptera]. 20 Jul 77. Switzerland.
- 407 [FPMI 706] FPMI (655) ← P Degroot. 4th instar larva, *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 26 Jun 79. Canada: Thessalon, Ontario.
- 491 H Beerman and DE McCabe. Reisolate of ARSEF 141 after 3 passes through *Choristoneura fumiferana* [Lepidoptera: Tortricidae]. 18 Jun 80. Lab. manipulation.
- 685 DW Roberts (102181-12). *Nilaparvata lugens* [Homoptera: Delphacidae]. 21 Oct 81. PR China: Wuhan, Hupei.
- 789 [CNPAF 82-6-25-01; CP 64; CSIRO EM732] RA Daoust (EK8-1) and M Yokoyama. Adult, *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 25 Jun 82. Brazil: CNPAF, Goiânia, Goiás.
- 790 [CNPAF 82-6-25-02; CP 65; CSIRO EM733] RA Daoust (EK8-2) and M Yokoyama. Adult, *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 25 Jun 82. Brazil: CNPAF, Goiânia, Goiás.
- 800 EL Cuebas-Incle. [Homoptera: Cercopidae]. Jul 79. USA: Six Mile Creek, Ithaca, New York.
- 822 [CSIRO EM667; IPLB 421] CSIRO (EM667) ← G Remaudière. *Capitophorus* sp. [Homoptera: Aphididae]. 24 Oct 73. France: Quineville, Manche.
- 823 [ARSEF 359, 370; CSIRO EM539; IPLB 844] G Lutton and RJ Milner ← ARSEF (103). *Therioaphis maculata* [Homoptera: Aphididae]. 9 Nov 78. Australia: Armidale, New South Wales. Reisolated from field release at Armidale.
- 899 SP Wraight (Ef-1). Reisolate of ARSEF 789 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. Feb 83. Lab. manipulation.
- 914 S Keller (445). *Drepanosiphum aceris* [Homoptera: Aphididae]. Nov 82. Switzerland.
- 1018 JV Maddox and MR McGuire (A). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1019 JV Maddox and MR McGuire (B). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1020 JV Maddox and MR McGuire (D). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1021 JV Maddox and MR McGuire (F). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1048 J Aoki (Ent. 8) ← H Kawamoto. *Plutella xylostella* [Lepidoptera: Plutellidae]. Dec 75. Japan: Fuchu, Tokyo Prefecture.
- 1050 J Aoki (Ent. 26) ← M Shimazu. *Delphacodes striatella* [Homoptera: Delphacidae]. Dec 76. Japan: Chikugo, Fukuoka Prefecture.
- 1082 CSIRO (EM752) ← G Lutton. *Merophyas divulsana* [Lepidoptera: Tortricidae]. 28 Jul 83. Australia: Boonah, Queensland.
- 1100 AR Rashid. Larva, *Plutella xylostella* [Lepidoptera: Plutellidae]. Apr 81. Malaysia: Cameron Highlands, Pahang.
- 1125 [CSIRO EM682] M Shimazu (F-17). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 29 Mar 84. Japan: Fukuoka Prefecture.
- 1130 [CSIRO EM742] S Keller (444). *Drepanosiphum aceris* [Homoptera: Aphididae]. Nov 82. Switzerland.
- 1136 M Shimazu (F-43). *Nilaparvata lugens* [Homoptera: Delphacidae]. Acc'd 3 Apr 84. Japan: Fukuoka Prefecture.
- 1227 [CNPAF 84-04-03-6B; CP 127] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 3 Apr 84. Brazil: Augusto Pestana (Ijuí), Rio Grande do Sul.
- 1228 [CNPAF 84-04-02-5D; CP 128] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1229 [CNPAF 84-04-02-6F; CP 129] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1231 [CNPAF 84-04-02-5B; CP 131] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1232 [CNPAF 84-04-02-5C; CP 132] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1233 [CNPAF 84-04-02-6G; CP 133] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1234 [CNPAF 84-04-02-6B; CP 134] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1236 [CNPAF 84-04-02-5J; CP 136] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1237 [CNPAF 84-04-02-5A; CP 137] DW Roberts. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 2 Apr 84. Brazil: Palmitos, Santa Catarina.
- 1239 [CNPAF 84-03-30-2A-A; CP 139] DW Roberts. [Homoptera: Cicadellidae]. 30 Mar 84. Brazil: Francisco Beltrão, Paraná.
- 1261 JV Maddox and MR McGuire (C). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.
- 1262 JV Maddox and MR McGuire (E). *Empoasca fabae* [Homoptera: Cicadellidae] on potato. 12 Sep 83. USA: Arlington Research Station, nr. Madison, Wisconsin.

- 1263 J Aoki (Ent. 5) ← M Shimazu. [Homoptera: Cicadellidae]. Acc'd 3 May 84. Japan: Chikugo, Fukuoka Prefecture.
- 1336 [ARSEF 1428] S Balazy (1555). Adult, [Diptera: Nematocera] attached to the leaves of herbaceous plants on a leafy forest floor. 21 May 83. Poland: Bialowieza National Park.
- 1337 S Balazy (1558b). [Diptera] attached to the underside of leaves of arboraceous plants. 22 May 83. Poland: Bialowieza National Park.
- 1341 S Balazy (1577/6). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Sadurki.
- 1342 S Balazy (1577/7). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Sadurki.
- 1343 S Balazy (1577/8). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Sadurki.
- 1344 S Balazy (1578/1). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: gardens, Turka.
- 1345 S Balazy (1578/2). Larva, *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Turka.
- 1346 S Balazy (1578/1-2). *Pieris brassicae* [Lepidoptera: Pieridae]. 10 Sep 83. Poland: Turka.
- 1350 S Balazy (1589). Acc'd 5 Jun 84. Poland.
- 1428 [ARSEF 1336] S Balazy (1555). [Diptera: Nematocera] attached to the leaves of herbaceous plants on a leafy forest floor. 21 May 83. Poland: Bialowieza National Park.
- 1492 SG Wraight and SP Wraight (A-22). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1493 SG Wraight and SP Wraight (A-24). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 9 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1494 SG Wraight and SP Wraight (A-26). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 9 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1495 SG Wraight and SP Wraight (A-31). [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1496 SG Wraight and SP Wraight (A-33). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1497 SG Wraight and SP Wraight (A-37). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1498 SG Wraight and SP Wraight (A-41). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1499 SG Wraight and SP Wraight (A-42). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1500 SG Wraight and SP Wraight (A-44). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1501 SG Wraight and SP Wraight (A-50). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1502 SG Wraight and SP Wraight (B-37). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1503 SG Wraight and SP Wraight (B-33). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1504 SG Wraight and SP Wraight (B-40). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: bean field, CNPAF, Goiânia, Goiás.
- 1541 SG Wraight and SP Wraight (B-48). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1542 SG Wraight and SP Wraight (B-51). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1543 SG Wraight and SP Wraight (Er11T3). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1544 [ARSEF 1595] SG Wraight and SP Wraight (A-9). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1581 SG Wraight and SP Wraight (A-6). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1582 SG Wraight and SP Wraight (A-5). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1583 SG Wraight and SP Wraight (A-7). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1584 SG Wraight and SP Wraight (A-10). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1585 SG Wraight and SP Wraight (A-12). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1586 SG Wraight and SP Wraight (A-13). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 4 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1587 SG Wraight and SP Wraight (A-16). [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1588 SG Wraight and SP Wraight (A-17). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1589 SG Wraight and SP Wraight (A-19). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1590 SG Wraight and SP Wraight (A-21). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 5 Jul 84. Brazil: CNPAF, Goiânia, Goiás.

- 1591 SG Wraight and SP Wraight (A-30). [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1593 SG Wraight and SP Wraight (A-40). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1594 SG Wraight and SP Wraight (A-43). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1595 [ARSEF 1544] SG Wraight and SP Wraight (A-9). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 Jul 84. Brazil: CNPAF, Goiânia, Goiás.
- 1674 M Shimazu (F-448(1)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 84. Japan: Hokkaido Prefecture.
- 1675 M Shimazu (F-448(2)). *Ptycholoma aeriferana* [Lepidoptera: Tortricidae]. 29 Jun 84. Japan: Hokkaido Prefecture.
- 1699 MC Rombach (A). *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. Acc'd 6 Nov 84. Philippines: IRRI, Los Baños, Manila.
- 1719 S Keller (520). *Trioza urticae* [Homoptera: Psyllidae]. 18 Oct 84. Switzerland: Trasadingen, Schaffhausen.
- 1841 SG Wraight and SP Wraight (Ef239t2). Reisolate of ARSEF 239 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. 24 Jan 85. Lab. manipulation.
- 1921 M Shimazu (FE3). [Diptera]. 20 Jun 85. USA: Allegany State Park, Salamanca, New York.
- 1928 SG Wraight and SP Wraight (A1a). *Empoasca kraemeri* [Homoptera: Cicadellidae] on cowpea. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1929 SG Wraight and SP Wraight (B1). *Empoasca kraemeri* [Homoptera: Cicadellidae] on cowpea. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1930 SG Wraight and SP Wraight (L2). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1931 SG Wraight and SP Wraight (M2). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1932 SG Wraight and SP Wraight (K2). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1933 SG Wraight and SP Wraight (N1). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 29 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1934 SG Wraight and SP Wraight (F). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1935 SG Wraight and SP Wraight (J1). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 25 May 85. Brazil: CNPAF, Goiânia, Goiás.
- 1937 SG Wraight and SP Wraight (W3). *Empoasca kraemeri* [Homoptera: Cicadellidae] on beans. 8 Jun 85. Brazil: CNPAF, Goiânia, Goiás.
- 1938 MR McGuire (85-1(1pass)). *Empoasca fabae* [Homoptera: Cicadellidae] on snapbeans. 23 Jul 85. USA: Champaign, Illinois.
- 2196 DW Roberts. [Homoptera: Cicadellidae]. 2 Jun 86. Brazil: CNPAF, Goiânia, Goiás.
- 2240 RI Carruthers (HOP-IV). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2241 RI Carruthers (HOP-V). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2242 RI Carruthers (HOP-III). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2243 RI Carruthers (HOP-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2244 RI Carruthers (HOP-VII). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2245 RI Carruthers (HOP-VI). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2246 RI Carruthers (HOP-I). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2256 TJ Poprawski (8631). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.
- 2257 TJ Poprawski (8633). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.
- 2258 TJ Poprawski (8634). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.
- 2259 TJ Poprawski (8635). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.
- 2260 TJ Poprawski (8636). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.
- 2261 TJ Poprawski (8637). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 29 Aug 86. France: Roche sur Chalais.
- 2262 TJ Poprawski (8639). Adult, *Hauptida distinguenda* [Homoptera: Cicadellidae] on sunflower. 30 Aug 86. France: Angoulême, Charente.
- 2282 RI Carruthers (D-I). *Empoasca* sp. [Homoptera: Cicadellidae] on sugar beet. 4 Sep 86. Yugoslavia: Dobakov.
- 2283 RI Carruthers (D-III). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Dobakov.
- 2284 RI Carruthers (D-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Dobakov.
- 2285 RI Carruthers. *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Padihska Skela.
- 2286 RI Carruthers (A-IV). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.
- 2287 RI Carruthers (A-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Zemun, Belgrade.

- 2288 RI Carruthers (D-IV). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Dobakov.
- 2289 RI Carruthers (C-II). *Empoasca* sp. [Homoptera: Cicadellidae]. 4 Sep 86. Yugoslavia: Padihska Skela.
- 2400 H Firstencel. *Empoasca fabae* [Homoptera: Cicadellidae]. Mar 86. Segregant of ARSEF 1590, forms resting spores.
- 2410 DG Holdom (300187). Larva, *Cnaphalocrocis medinalis* [Lepidoptera: Pyralidae]. 30 Jan 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2411 DG Holdom (130287-2). Adult, *Sesamia inferens* [Lepidoptera: Noctuidae]. 13 Feb 87. Indonesia: CIBA-GEIGY R & D Station, Cikampek, Jawa Barat, Java.
- 2499 [ARSEF 2524 (deaccessioned)] J Eilenberg (KVL 32). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.
- 2500 J Eilenberg (KVL 30). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.
- 2501 J Eilenberg (KVL 31). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.
- 2503 J Eilenberg (KVL 37). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.
- 2506 J Eilenberg (KVL 35). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.
- 2523 J Eilenberg (KVL 36). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.
- 2549 JV Maddox (HELM87, BULT). [Homoptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.
- 2550 JV Maddox (EL87, PLH). *Empoasca fabae* [Homoptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.
- 2551 JV Maddox (CHAMP87, BPLH-2). [Homoptera: Cicadellidae]. 1987. USA: N of Champaign, Illinois.
- 2552 JV Maddox (UNION87, BLH-1). [Homoptera: Cicadellidae]. 1987. USA: Union soybean field, McHenry, Illinois.
- 2554 [ARSEF 2669 (deaccessioned)] J Eilenberg (KVL 38). [Diptera]. 24 Aug 87. Denmark: Strandholm, Faarevejle.
- 2558 H Firstencel. Laboratory reisolate of ARSEF 1590 from marcescent material stored 35 months. Rec'd 8 Mar 88.
- 2600 BP Magalhães ← SP Wraight (T-7). Reisolate of ARSEF 1261. Acc'd 13 Sep 88.
- 2601 BP Magalhães ← SP Wraight (T-8). Reisolate of ARSEF 1261. Acc'd 13 Sep 88.
- 2666 J Eilenberg (KVL 47). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 88. Denmark: Roskilde.
- 2696 [ARSEF ?3161] TJ Poprawski (8812D). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.
- 2697 TJ Poprawski (88102). Reisolate of ARSEF 2700 after 3 passes through *Schizaphis graminum* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2698 TJ Poprawski (88111). Reisolate of ARSEF 2709 after 3 passes through *Chorisops tibialis* [Diptera: Stratiomyidae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2699 TJ Poprawski (88113). Reisolate of ARSEF 2706 after 2 passes through *Empoasca flavescens* [Homoptera: Cicadellidae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2700 [ARSEF 3171] G Mercadier and TJ Poprawski (8843A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 2701 [ARSEF 3119] G Mercadier and TJ Poprawski (8826). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 2702 [ARSEF ?3117] TJ Poprawski (8824B). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 2703 [ARSEF 3116] G Mercadier and TJ Poprawski (8820A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Kovin.
- 2704 TJ Poprawski (88100). Reisolate of ARSEF 2702 after 2 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2705 TJ Poprawski (88103). Reisolate of ARSEF 2701 after 7 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2706 [ARSEF 3149] G Mercadier and TJ Poprawski (8825A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 2707 TJ Poprawski (88107). Reisolate of ARSEF 2696 after 2 passes through *Acyrtosiphon pisum* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2708 [ARSEF ?3163] TJ Poprawski (8817B). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.
- 2709 [ARSEF 3114] G Mercadier and TJ Poprawski (8818A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.
- 2710 TJ Poprawski (88121). Reisolate of ARSEF 2703 after 2 passes through *Schizaphis graminum* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2711 TJ Poprawski (88108). Reisolate of ARSEF 2696 after 2 passes through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2712 TJ Poprawski (88116). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.
- 2713 [ARSEF 3164] G Mercadier and TJ Poprawski (8823A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.

- 2714 TJ Poprawski (88129). Reisolate of ARSEF 2703 passed through *Syrphus* sp. [Diptera: Syrphidae]. Rec'd 14 Apr 89. Lab. manipulation.
- 2716 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on snap bean. 1987. USA: Illinois Natural History Survey plot, Champaign, Illinois.
- 2717 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on soybean. 1987. USA: Union field, McHenry, Illinois.
- 2718 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on bean. 1987. USA: Helmar field, Kendall, Illinois.
- 2719 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae] on soybean. 1987. USA: East Lynn field, Vermillion, Illinois.
- 2720 H Firstencel ← JV Maddox. *Empoasca fabae* [Homoptera: Cicadellidae]. 1985. USA: Champaign, Illinois.
- 2732 GW Riethmacher (EB2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 6 Apr 89. Philippines: La Trinidad, Benguet.
- 2811 M Feng (MD8901). *Metopolophium dirhodum* [Homoptera: Aphididae] on spring wheat. 7 Jul 89. USA: Parma, Idaho.
- 2893 GW Riethmacher (E2). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 Apr 89. Philippines: La Trinidad, Benguet.
- 2977 D Landis (1A). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 23 Aug 89. USA: Michigan State University Botany Farm, Ingham County, Michigan.
- 2978 D Landis (1B). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 23 Apr 89. USA: Michigan State University Botany Farm, Ingham County, Michigan.
- 2979 D Landis (1C). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 23 Aug 89. USA: Michigan State University Botany Farm, Ingham County, Michigan.
- 2980 D Landis (2A). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 24 Aug 89. USA: Hudson Farm, Allegan County, Michigan.
- 2994 LG Leite and SP Wraight (C-1 Topo SP-3). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 20 Apr 90. Brazil: Ribeirão Grande, São Paulo.
- 2995 LG Leite and SP Wraight (C-1 Topo SP-2). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 20 Apr 90. Brazil: Ribeirão Grande, São Paulo.
- 2996 LG Leite and SP Wraight (C-2 Test SP-5). *Empoasca kraemeri* [Homoptera: Cicadellidae]. 20 Apr 90. Brazil: Ribeirão Grande, São Paulo.
- 3002 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #10, field #1, Capão Bonito, São Paulo.
- 3003 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #4, field #1, Capão Bonito, São Paulo.
- 3004 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #2, field #2, Capão Bonito, São Paulo.
- 3005 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 5 Apr 90. Brazil: treatment plot #1, field #1, Capão Bonito, São Paulo.
- 3006 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #10, field #1, Capão Bonito, São Paulo.
- 3007 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #2, field #1, Capão Bonito, São Paulo.
- 3008 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #2, field #2, Capão Bonito, São Paulo.
- 3009 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 30 Apr 90. Brazil: treatment plot #1, field #1, Capão Bonito, São Paulo.
- 3010 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. Apr 90. Brazil: treatment plot #3, field #1, Capão Bonito, São Paulo.
- 3011 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 30 Apr 90. Brazil: control plot #1, field #1, Capão Bonito, São Paulo.
- 3012 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 7 May 90. Brazil: treatment plot #3, field #1, Capão Bonito, São Paulo.
- 3013 SP Wraight ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 10 May 90. Brazil: control plot #1, field #1, Capão Bonito, São Paulo.
- 3021 H Firstencel (Yugo-1). Rec'd 21 Dec 89. The Yugo mix, created by H. Firstencel, is a combination of the following 7 isolates: 2706, 2246, 2288, 2712, 2240, 2283, 2243.
- 3022 H Firstencel (Yugo-2). Rec'd 21 Dec 89. The Yugo mix, created by H. Firstencel, is a combination of the following 7 isolates: 2706, 2246, 2288, 2712, 2240, 2283, 2243.
- 3023 H Firstencel (Brazil-1). Rec'd 21 Dec 89. The Brazil mix, created by H. Firstencel, is a combination of the following 7 isolates: 1228, 1239, 1493, 1928, 1231, 1504, 1581.
- 3024 H Firstencel (Brazil-2). Rec'd 21 Dec 89. The Brazil mix, created by H. Firstencel, is a combination of the following 7 isolates: 1228, 1239, 1493, 1928, 1231, 1504, 1581.
- 3026 DW Roberts ← LG Leite. *Empoasca kraemeri* [Homoptera: Cicadellidae]. 5 Apr 90. Brazil.
- 3100 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field, strip #1, Catherine, New York.
- 3104 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field, strip #1, Catherine, New York.

- 3105 M Wheeler. *Empoasca fabae* [Homoptera: Cicadellidae]. 13 Sep 90. USA: Hoffman field, strip #1, Catherine, New York.
- 3114 [ARSEF 2709] G Mercadier and TJ Poprawski (8818A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.
- 3115 G Mercadier and TJ Poprawski (8819A). *Typhlocyba* sp. [Homoptera: Cicadellidae] on sugar beet. 20 Sep 88. Yugoslavia: Kovin.
- 3116 [ARSEF 2703] G Mercadier and TJ Poprawski (8820A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Kovin.
- 3117 [ARSEF ?2702] TJ Poprawski (8824B). Reisolate of ARSEF 3150 passed through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 27 Nov 90. Lab. manipulation.
- 3118 TJ Poprawski (8825B). Reisolate of ARSEF 3149 passed through *Musca autumnalis* [Diptera: Muscidae]. Rec'd 27 Nov 90. Lab. manipulation.
- 3119 [ARSEF 2701] G Mercadier and TJ Poprawski (8826). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3149 [ARSEF 2706] G Mercadier and TJ Poprawski (8825A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 22 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3150 G Mercadier and TJ Poprawski (8824A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 22 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3151 TJ Poprawski (8819B). Reisolate of ARSEF 3115 passed through *Empoasca vitis* [Homoptera: Cicadellidae]. Rec'd 27 Nov 90. Lab. manipulation.
- 3159 G Mercadier and TJ Poprawski (8812B). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3160 G Mercadier and TJ Poprawski (8812C). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 23 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3161 [ARSEF ?2696] TJ Poprawski (8812D). Reisolate of ARSEF 3160 passed through *Empoasca vitis* [Homoptera: Cicadellidae]. Rec'd 11 Dec 90. Lab. manipulation.
- 3162 TJ Poprawski (8817A) ← IL Sivcev. *Empoasca vitis* [Homoptera: Cicadellidae]. 23 Sep 88.
- 3163 [ARSEF ?2708] TJ Poprawski (8817B). Reisolate of ARSEF 3162 passed through *Diuraphis noxia* [Homoptera: Aphididae]. Rec'd 11 Dec 90. Lab. manipulation.
- 3164 [ARSEF 2713] G Mercadier and TJ Poprawski (8823A). *Empoasca vitis* [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3165 G Mercadier and TJ Poprawski (8830A). *Empoasca vitis* [Homoptera: Cicadellidae] on cabbage. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3170 G Mercadier and TJ Poprawski (8842A). *Typhlocyba* sp. [Homoptera: Cicadellidae] on *Abutilon* sp. 20 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3171 [ARSEF 2700] G Mercadier and TJ Poprawski (8843A). *Typhlocyba* sp. [Homoptera: Cicadellidae] on sugar beet. 21 Sep 88. Yugoslavia: Zemun, Belgrade.
- 3172 TJ Poprawski (8843B). Reisolate of ARSEF 3171 passed through *Empoasca vitis* [Homoptera: Cicadellidae]. Rec'd 11 Dec 90. Lab. manipulation.
- 3204 GW Riethmacher (E3). *Plutella xylostella* [Lepidoptera: Plutellidae]. 5 Apr 89. Philippines: La Trinidad, Benguet.
- 3205 GW Riethmacher (E5). *Plutella xylostella* [Lepidoptera: Plutellidae]. 7 Apr 89. Philippines: La Trinidad, Benguet.
- 3206 GW Riethmacher (E6). *Plutella xylostella* [Lepidoptera: Plutellidae]. 3 May 89. Philippines: La Trinidad, Benguet.
- 3213 M Wheeler (Yugo Mix Plate#1). Rec'd 27 Dec 90. This culture was taken from a bubbler mixture of ARSEFs 2240, 2243, 2246, 2283, 2288, 2706, and 2712.
- 3214 M Wheeler (Yugo Mix Plate#2). Rec'd 27 Dec 90. This culture was taken from a bubbler mixture of ARSEFs 2240, 2243, 2246, 2283, 2288, 2706, and 2712.
- 3217 SG Wraight and SP Wraight (Ef1590). Reisolate of ARSEF 1590 passed through *Empoasca fabae* [Homoptera: Cicadellidae]. Rec'd 22 Jan 91. Lab. manipulation.
- 3283 [ARSEF 3284] S Roberts (Champ90LH2To(B)). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 1990. USA: Champaign County, Illinois.
- 3284 [ARSEF 3283] S Roberts (Champ90LH2To(E)). *Empoasca fabae* [Homoptera: Cicadellidae] on alfalfa. 1990. USA: Champaign County, Illinois.
- 3355 M Wheeler. Reisolate of ARSEF 1019 after 2 passes through *Empoasca fabae* [Homoptera: Cicadellidae]. Rec'd 13 Jun 91. Lab. manipulation.
- 3376 M Wheeler ← MH Griggs. *Empoasca fabae* [Homoptera: Cicadellidae]. 26 Jul 91. USA: Game Farm Rd., Ithaca, New York.
- 3377 M Wheeler ← MH Griggs. *Empoasca fabae* [Homoptera: Cicadellidae]. 29 Jul 91. USA: Game Farm Rd., Ithaca, New York.
- 3390 M Wheeler ← MH Griggs. *Empoasca fabae* [Homoptera: Cicadellidae]. 5 Aug 91. USA: Game Farm Rd., Ithaca, New York.
- 3489 J Eilenberg (KVL 47). *Delia radicum* [Diptera: Anthomyiidae]. 28 Jul 88. Denmark: Roskilde.
- 3623 [ARSEF 62 (lost); FPMI 699] ATCC (32245) ← RG Kenneth (3029). *Empoasca* sp. [Homoptera: Cicadellidae] on citrus leaf. Rec'd 11 Mar 92. Israel: Girat, Brenner.

Acremonium berkeleyanum[Lepidoptera: Lymantriidae]
Lymantria dispar 2067**Acremonium furcatum**[Coleoptera: Curculionidae]
Hypera postica 1372**Acremonium roseum**[Lepidoptera: Noctuidae]
Pseudoplusia ni 1964**Acrodontium crateriforme**[Lepidoptera: Lymantriidae]
Lymantria dispar 2070**Akanthomyces gracilis**[Hymenoptera: Formicidae]
Paltothyreus tarsatus 2910 2919**Aphanocladium album**[Coleoptera: Curculionidae]
Hypera postica 1329
[Homoptera: Aleyrodidae]
Bemisia tabaci 3680
[Hymenoptera: Formicidae]
Anoplolepis longipes 2161**Aphanomyces sp.**[Dorylaimida: Longidoridae]
Xiphinema americanum 2005**Arthrobotrys dactyloides**[Tylenchida: Heteroderidae]
Heterodera schachtii 2934**Aschersonia sp.**[Homoptera: Aleyrodidae]
Unknown species 3014
[Homoptera]
Unknown species 3015**Aschersonia aleyrodis**[Homoptera: Aleyrodidae]
Unknown species 430 432
Aglaia odoratissima 2154
Dialeurodes citri 341 342
Dialeurodes citri 992
Trialeurodes vaporariorum 2268**Aschersonia goldiana**[Homoptera: Aleyrodidae]
Dialeurodes citri 343
Unknown species 431**Aschersonia inasperata**[Homoptera: Aleyrodidae]
Dialeurodes citri 2351 2356 2357 2358
2397 2398**Aschersonia turbinata**[Homoptera]
Unknown species 1030**Ascosphaera aggregata**[Hymenoptera: Megachilidae]
Megachile rotundata 689 690**Ascosphaera apis**[Hymenoptera: Apidae]
Apis mellifera 691 692 2683**Ascosphaera atra**[Hymenoptera: Megachilidae]
Megachile rotundata 693**Ascosphaera major**[Hymenoptera]
Unknown species 694**Ascosphaera proliperda**[Hymenoptera: Megachilidae]
Megachile centuncularis 695
Megachile rotundata 696**Aspergillus sp.**[Homoptera: Aleyrodidae]
Bemisia tabaci 3698
[Lepidoptera: Plutellidae]
Plutella xylostella 2765 2817 2820
[Orthoptera: Acrididae]
Melanoplus 1152**Aspergillus flavus**[Diptera: Bombyliidae]
Unknown species 3430
[Diptera: Sarcophagidae]
Neobulkeria citellivora 3144
[Hymenoptera: Formicidae]
Anoplolepis longipes 2157 2158 2159
[Lepidoptera: Bombycidae]
Bombyx mori 1003 1010
[Lepidoptera: Lymantriidae]
Lymantria dispar 2833
[Lepidoptera: Plutellidae]
Plutella xylostella 2818**Aspergillus niger**[Orthoptera]
Unknown species 3143**Aspergillus nr. parasiticus**[Coleoptera: Curculionidae]
Unknown species 2173**Aspergillus ochraceus**[Acari: Ixodidae]
Ixodes scapularis 3325**Basidiobolus haptospora**[Diptera: Brachycera]
Unknown species 1347**Basidiobolus ranarum**[Lepidoptera: Lasiocampidae]
Dendrolimus spectabilis 1139**Batkoa apiculata**[Diptera: Sciaridae]
Unknown species 919 927 1660 1661
Bradysia paupera 3224 3225 3226
[Hymenoptera]
Unknown species 395**Batkoa gigantea**[Diptera: Tipulidae]
Tipula paludosa 214 215 403**Batkoa major**[Homoptera: Aphididae]
Unknown species 1427
[Homoptera: Cicadellidae]
Empoasca fabae 2936 3102 3103**Beauveria sp.**[Coleoptera: Curculionidae]
Anthonomus grandis 1835
Hypera postica 1327
Shirahoshizo insidiosus 1681
[Coleoptera: Scarabaeidae]
Lachnosterna morosa 1685
Xyloryctes jamaicensis 2412
[Hemiptera: Miridae]
Adelphocoris 1195 1196 1197 1198
1199 1200 1201 1202 1203 1204
1205 1206 1207 1208 1209 1210
1211 1213 1214 1215 1216 1218
1219 1220 1221 1222 1224
[Homoptera: Membracidae]
Unknown species 2164
[Hymenoptera: Vespidae]
Vespula vulgaris 2997
[Lepidoptera: Bombycidae]
Bombyx mori 1040
[Lepidoptera: Noctuidae]
Mocis 590
Spodoptera frugiperda 3289**Beauveria amorphia**[Coleoptera]
Unknown species 2251
[Coleoptera: Scarabaeidae]
Anomala cuprea 1682
[Hymenoptera: Formicidae]
Solenopsis 2641**Beauveria bassiana**[Coleoptera]
Unknown species 293 301 754 1980
3197 3198 3199
[Coleoptera: Anthicidae]
Anthicus floralis 157
[Coleoptera: Anthribidae]
Araecerus fasciculatus 413
[Coleoptera: Bruchidae]
Caryedon serratus 1186
[Coleoptera: Carabidae]
Unknown species 952 1975 3386
[Coleoptera: Cerambycidae]
Unknown species 318 319 785 2557
Aromia moscata 1559 1560 1561 1562
1563
Moechotypa diphyis 1678
Monochamus alternatus 1679
Psacotha hilaris 1041
[Coleoptera: Chrysomelidae]
Unknown species 504 751 1971
Cerotoma 951 1458 1467
Cerotoma arcuata 731 732 756 931 934
2075
Crimissa 786 788 805
Diabrotica 721 946 947 948 949 950
956 982 2512 2938 2942 3219 3287
Diabrotica balteata 3309
Diabrotica barberi 2579
Diabrotica paranoense 739 752 758 809
937 938
Diabrotica speciosa 928 958 1060 1453
1454 1455 1456 1459 1460 1461
1462 1463 1464 1465 1466 1469
1470 1471 1472 1473 1475 1476

1954 1961 2511 2515 2520 2625 2626	<i>Sitona lineatus</i> 1156 1157 1158 1159 1160 1161 1162 1165 1167 1168 1169 1170 1182 1192 1193 1194 1306	<i>Adelphocoris</i> 1516 1517 1523 1524 1525 1526 1527 1528 1529 1531 1533 1534 1535 1536 1537 1538 1539 1540 1635 1636 1637 1638 1640 1643 1650 1789 1790 1791 1792 1793 1794 1795 1796 1797 1798 1799 1800 1801
<i>Diabrotica undecimpunctata</i> 201	<i>Sternuchus subsignatus</i> 1450	<i>Lygus</i> 886 1394 1395 1396 1397 1404 1405 1406 1407 1408 1409 1410 1411 1412 1413 1414 1520 1521 1648 1649 1802 1803 1804 1805 1806 1807 1808 1809 1810 1812 1813 1814 1822 2318 2319 2320 2321 2322 2458 2462
<i>Diabrotica virgifera</i> 2330 3111	[Coleoptera: Elateridae]	<i>Lygus ?lineolaris</i> 1317 1318 1319 1320 1321 1322 1323 1324 1325
<i>Galerucina</i> 2463	Unknown species 150 784 804	<i>Lygus pratensis</i> 2461
<i>Leptinotarsa decemlineata</i> 149 252 317	[Coleoptera: Lagriidae]	[Hemiptera: Nabidae]
340 344 353 384 505 506 507 509	<i>Lagria vilosa</i> 2961	<i>Nabis</i> 1988
510 534 535 1039 1079 1081 1106	[Coleoptera: Languriidae]	[Hemiptera: Pentatomidae]
1619 1620 1621 1622 1623 1624	Unknown species 3457	Unknown species 737 944 1973 1974 1984
1704 1705 1706 1707 1708 1709	[Coleoptera: Nitidulidae]	<i>Euschistus heros</i> 1478
1710 1711 1712 1713 1721 1722	Unknown species 325	<i>Nezara viridula</i> 1054 1474 2011 2457 2516
1723 1749 1750 1775 1776 1777	[Coleoptera: Pythidae]	<i>Oebalus poecilus</i> 2191
1778 1779 1780 1781 1982 2030	<i>Pytho</i> 1854	<i>Podisus</i> 1457 2519
2031 2032 2695 2987 2988 2989	[Coleoptera: Rhizophagidae]	<i>Tibraca limbativentres</i> 933
2990 2991	<i>Rhizophagus grandis</i> 1848	[Hemiptera: Rhopalidae]
<i>Mauobupis morosi</i> 2509	[Coleoptera: Scarabaeidae]	<i>Leptocoris</i> 560 566
<i>Nodonata</i> 3437 3438 3439 3441 3442	<i>Ancognatha scarabaeoides</i> 2249 2250	<i>Leptocoris oratorius</i> 1269 1270
3444 3446 3447 3450 3451 3452	<i>Anomala cuprea</i> 1683	[Hemiptera: Tingidae]
3455	<i>Aphodius tasmaniae</i> 3070	<i>Corythucha ciliata</i> 812
<i>Pachybrachis pallicarnis</i> 547	<i>Costelytra zealandica</i> 3055	[Homoptera: Aphididae]
<i>Paropsis charybdis</i> 3066	<i>Popillia japonica</i> 3716 3717	Unknown species 3120 3121
<i>Pyrrhalta luteola</i> 1509 1510 1511 1518 1519	[Coleoptera: Scolytidae]	<i>Diuraphis noxia</i> 2861 2864 2879 2882 3153 3154 3155 3156 3157 3158 3166 3167 3168 3169
<i>Systema</i> 2079	Unknown species 1566 1567 3040	<i>Myzus persicae</i> 3385 3387
[Coleoptera: Coccinellidae]	<i>Dendroctonus ponderosae</i> 1849 1853	<i>Schizaphis graminum</i> 2336 2860 2880 2881 2883
<i>Coccinella</i> 2033 2034	<i>Dendroctonus rufipennis</i> 1017	[Homoptera: Cercopidae]
<i>Coccinella septempunctata</i> 2580 3534	<i>Dryocoetes confusus</i> 1852	<i>Deois flavopicta</i> 806 3019
<i>Coleomegilla maculata</i> 1956	<i>Hypothenemus hampei</i> 1480 2685 2686 2687 2688 2689 2690 2691 2692 2693 3443 3445 3448 3453	<i>Zulia entreciana</i> 477
<i>Cycloneda sanguinea</i> 2010	<i>Ips</i> 1855	[Homoptera: Cicadellidae]
[Coleoptera: Curculionidae]	[Coleoptera: Staphylinidae]	Unknown species 945
Unknown species 930 1061 2040 3667	Unknown species 3112	<i>Nephotettix bipunctata cincticeps</i> 708 1553 1554 1555 1556
<i>Anthonomus grandis</i> 1966 2559 2638 2639 2945 2946	[Coleoptera: Tenebrionidae]	<i>Nephotettix cincticeps</i> 1098
<i>Anthonomus musculus</i> 3037	Unknown species 757 783 787	[Homoptera: Cicadidae]
<i>Aracanthus</i> 753	[Crocodylia: Alligatoridae]	Unknown species 2544
<i>Ceutorhynchus litura</i> 3403	<i>Alligator mississippiensis</i> 2455	[Homoptera: Delphacidae]
<i>Chalcodermus</i> 941 942 943 953	[Dermaptera]	<i>Nilaparvata lugens</i> 654 679 709 714 717 719 2427
<i>Chalcodermus aeneus</i> 336 337 733 734 735 736 738	Unknown species 796	[Homoptera: Membracidae]
<i>Conotrachelus nenuphar</i> 1016	[Dermaptera: Forficulidae]	Unknown species 3312
<i>Cosmopolites</i> 1833	<i>Forficula auricularia</i> 3018	[Homoptera: Pseudococcidae]
<i>Cosmopolites sordidus</i> 1483	[Diptera]	<i>Rhizococcus</i> 2236
<i>Curculio caryae</i> 2676	Unknown species 1962 2454	[Hymenoptera: ?Megachilidae]
<i>Cyrtopistomus castaneus</i> 2270 2271	[Diptera: Anthomyiidae]	Unknown species 957
<i>Diaprepes abbreviata</i> 412 416 433	<i>Delia antiqua</i> 1864 1865 1866	[Hymenoptera: Apoidea]
<i>Geraeus senilis</i> 3310 3311	<i>Delia radicum</i> 1151	Unknown species 1468
<i>Hypera postica</i> 1389 1398 1399 1515	[Diptera: Calliphoridae]	[Hymenoptera: Diprionidae]
<i>Larinus</i> 2694	<i>Calliphora</i> 1630	<i>Neodiprion pini</i> 338
<i>Listronotus oregonensis</i> 2983 2984 2985 2986	[Diptera: Muscidae]	[Hymenoptera: Eurytomidae]
<i>Metamasius</i> 842	Unknown species 1955	<i>Bephratelloides cubensis</i> 2869
<i>Metamasius hemipterus</i> 2642	<i>Musca autumnalis</i> 1514	
<i>Oryzophagus oryzae</i> 3098	<i>Musca domestica</i> 2953	
<i>Otiiorhynchus sulcatus</i> 813 814 815 1073 1074 1075 3065	[Diptera: Psychodidae]	
<i>Premnotrypes suturicallus</i> 1969	<i>Phlebotomus papatasi</i> 2972	
<i>Premnotrypes vorax</i> 2248	[Diptera: Tachinidae]	
<i>Sitona</i> 1647 3063	Unknown species 1150	
<i>Sitona discoides</i> 816 1153 1154 1155 1163 1164 1171 1172 1173 1174 1175 1176 1177 1178 1179 1180 1181 1183 1185 1188 1189 1190 1191 1309 1311 1312 1313 1811 1815 1816 1817 1818 1819 1820 1821	[Hemiptera: Coreidae]	
<i>Sitona humeralis</i> 1491	<i>Leptoglossus fulvicornis</i> 3086	
	[Hemiptera: Lygaeidae]	
	<i>Blissus leucopterus</i> 792 2430	
	<i>Nysius vinitor</i> 300	
	[Hemiptera: Mesoveliidae]	
	<i>Mesovelia mulsanti</i> 320	
	[Hemiptera: Miridae]	
	Unknown species 3449 3454 3456	

- [Hymenoptera: Formicidae]
Unknown species 1960 2487
Atta 1831 3285
Atta mexicana 2484 2485 2486
Solenopsis 2722 2723
Solenopsis invicta 2402 2403 2404
- [Hymenoptera: Formicidae: Myrmicinae]
Unknown species 1976 1977 1978 1979
- [Hymenoptera: Ichneumonidae]
Unknown species 156
- [Hymenoptera: Pamphiliidae]
Pamphilus betulae 152 154
- [Hymenoptera: Sphecidae]
Unknown species 2545
- [Hymenoptera: Vespidae]
Unknown species 730 1953 2943 2944
- [Isoptera: Rhinotermitidae]
Reticulitermes flavipes 3041
- [Lepidoptera]
Unknown species 2633 2637 2857
- [Lepidoptera: Arctiidae]
Hyphantria cunea 1564 1565
- [Lepidoptera: Bombycidae]
Bombyx mori 302 303 304 305 718
1007 2737
- [Lepidoptera: Brassolidae]
Brassolis 2297
Brassolis saphorae 2619
- [Lepidoptera: Cossidae]
Cossula cossus 1103 1104 1558
Zeuzera pyrina 1105
- [Lepidoptera: Hyblaeidae]
Hyblaea puer 2597
- [Lepidoptera: Lasiocampidae]
Dendrolimus spectabilis 1677
Malacosoma americanum 1
- [Lepidoptera: Lymantriidae]
Lymantria dispar 155 299 2054 2267
2570 2571 2572 2573 2831 3404
3405 3527 3528 3529 3530
- [Lepidoptera: Lyonetiidae]
Leucophaea scitella 1115 1117
- [Lepidoptera: Noctuidae]
Unknown species 1627 1628 1629
Autographa gamma 2253 2254
Heliothis armigera 1149 1166
Heliothis virescens 1314 1315 1316
1788
Sesamia cretica 1118
Spodoptera frugiperda 959 3288
Spodoptera littoralis 1512 1513 3286
- [Lepidoptera: Olethreutidae]
Carpocapsa pomonella 503
- [Lepidoptera: Phycitinae]
Emmalocera depressella 2417
- [Lepidoptera: Plutellidae]
Plutella xylostella 2727 2728 2729
- [Lepidoptera: Pyralidae]
Chilo infuscatellus 1886
Chilo plejadellus 326
Cnaphalocrocis medinalis 2041
Diatraea saccharalis 1484 1832 1834
2629 3020
Dioryctria sylvestrella 1001
Galleria mellonella 1113 1114
- Ostrinia nubilalis* 501 502 533 652
1038 1121 2976
Terastia meticulosaalis 1836
- [Lepidoptera: Saturniidae]
Unknown species 843
Schirius 2962
- [Lepidoptera: Stenomatinae]
Stenoma decora 1479
- [Lepidoptera: Tortricidae]
Choristoneura 1850
Cydia pomonella 151 1122 3220
Lobesia botrana 1107 1110
- [Neuroptera: Chrysopidae]
Chrysopa 153
- [Orthoptera]
Unknown species 3622
- [Orthoptera: Acrididae]
Unknown species 356 357 1053 1326
1959
Melanoplus 3620
- [Thysanoptera: Thripidae]
Thrips calcaratus 3216
- Beauveria brongniartii**
[Coleoptera]
Unknown species 2660
- [Coleoptera: Cerambycidae]
Niphonoclea 1431
Psacothoe hilaris 1680
- [Coleoptera: Scarabaeidae]
Anomala costata 985 1676
Costelytra zealandica 3054
Melolontha melolontha 617 979 1067
1068 1069 1070 1071 1072 1076
1077
- [Homoptera: Cicadellidae]
Nephotettix bipunctata cincticeps 656
678
- [Hymenoptera: Formicidae]
Solenopsis invicta 2401
- [Lepidoptera: Castniidae]
Castnia licus 1829
- [Lepidoptera: Pyralidae]
Diatraea saccharalis 1830
- [Orthoptera: Acrididae]
Unknown species 32
- Beauveria velata**
[Lepidoptera]
Unknown species 2998
- Beniowskia sp.**
[Lepidoptera: Plutellidae]
Plutella xylostella 2751
- Calcarisporium ovalisporum**
[Homoptera: Delphacidae]
Nilaparvata lugens 1907
- Candida sp.**
[Dictyoptera: Blattellidae]
Blattella germanica 1877 1924 1925
1926
- [Dictyoptera: Blattidae]
Periplaneta americana 1857
- Catenaria anguillulae**
[Dorylaimida: Longidoridae]
Xiphinema 2015
- Cladosporium sp.**
[Homoptera: Aleyrodidae]
Unknown species 3706
- Cladosporium cladosporioides**
[Acari: Tetranychidae]
Eotetranychus 3085
- [Homoptera: Aphididae]
Pemphigus betae 3463
- [Thysanoptera: Thripidae]
Thrips palmi 3375
- Coelomycidium simulii**
[Diptera: Simuliidae]
Simulium venustum 218
- Conidiobolus sp.**
[Diptera: Anthomyiidae]
Unknown species 2494
Delia radicum 2672
- [Diptera: Ptychopteridae]
Ptychoptera contaminata 2498
- [Homoptera: Aphididae]
Unknown species 1426
Aphis fabae 3383
Brevicoryne brassicae 2130
Myzus persicae 3384
Schizaphis graminum 1967
- [Homoptera: Cercopidae]
Unknown species 391
Deois 2147
Deois flavopicta 2148
- [Homoptera: Cicadellidae]
Nephotettix bipunctata cincticeps 605
606
- [Homoptera: Delphacidae]
Nilaparvata lugens 211 517 522 564
595 596
Sogatella furcifera 604
- [Hymenoptera]
Unknown species 2193
- [Hymenoptera: Formicidae]
Solenopsis invicta 2819
- [Isoptera: Oniscoidea]
Porcellio 1672
- [Lepidoptera: Plutellidae]
Plutella xylostella 2771 2772 2815 2816
3208
- [Lepidoptera: Tortricidae]
Choristoneura fumiferana 92 93 94
147 148
- [Orthoptera: Tettigoniidae]
Unknown species 1477
- Conidiobolus coronatus**
[Agaricales]
Volvariella volvacea 1147
- [Araneida]
Unknown species 567
- [Coleoptera: Curculionidae]
Ceutorhynchus napi 1572 1573 1574
1575
- [Dacrymycetales]
Unknown species 3087
- [Diptera: Psychodidae]
Lutzomyia 3379
Lutzomyia sordelli 3414 3415

[Homoptera: Aphididae]
Acyrtosiphon pisum 1738
Metopolophium dirhodum 2812 2813 2814

[Homoptera: Cicadellidae]
Unknown species 419 421 422
Empoasca fabae 3109
Nephotettix bipunctata cincticeps 520 597

[Homoptera: Delphacidae]
Nilaparvata lugens 349 405 406 418 511 512 514 523 524 525 528 563 565 655 997 1876

[Lepidoptera: Plutellidae]
Plutella xylostella 2730

[Thysanoptera: Thripidae]
Frankliniella occidentalis 3222

Conidiobolus firmipilleus
[Lepidoptera: Plutellidae]
Plutella xylostella 2731

Conidiobolus lachnodes
[Homoptera: Delphacidae]
Nilaparvata lugens 700

Conidiobolus nr. coronatus
[Homoptera: Delphacidae]
Nilaparvata lugens 598 599 600 1742 1743
Sogatella furcifera 602

[Lepidoptera: Noctuidae]
Mocis latipes 1884

Conidiobolus obscurus
[Homoptera: ?Aphididae]
Unknown species 243

[Homoptera: Aphididae]
Unknown species 434
Acyrtosiphon kondoi 354 824 839
Acyrtosiphon pisum 832 834 1741 2504 3130 3131 3132 3133 3134 3135 3137 3138 3139 3140 3141
Aphis 124
Aphis armata 133 355
Brevicoryne brassicae 1146
Macrosiphum euphorbiae 174 175 182
Metopolophium dirhodum 97 3092
Myzus ascalonicus 67
Myzus persicae 129
Rhopalosiphum maidis 3088 3089 3090 3091
Rhopalosiphum padi 125 1131 3080
Therioaphis maculata 74
Uroleucon 121 122

[Homoptera: Cicadellidae]
Empoasca fabae 3099

Conidiobolus osmodes
[Coleoptera: Curculionidae]
Hypera variabilis 79

Conidiobolus pseudapiculatus
[Diptera: Psilidae]
Psila rosae 2493 2496 2497 2502

Conidiobolus thromboides
[Diptera]
Unknown species 86 87

[Diptera: Culicidae]
Culex pipiens pipiens 70

[Diptera: Heliomyzidae]
Unknown species 5

[Homoptera: Aphididae]
Unknown species 58 59 248 249 250 1006
Acyrtosiphon pisum 100 3136
Aphis fabae 42 242 244 245 246 247 630 631 632 633 634 635 1735
Aphis gossypii 83 194
Cavariella theobaldi 101 102 363 1733 1734
Diuraphis tritici 2914
Macrosiphum euphorbiae 40
Metopolophium dirhodum 2828 2829 2849 2850
Myzus persicae 2 39 41 57 63 99 649
Rhopalosiphum insertum 73
Schizaphis graminum 2955
Sitobion avenae 2830
Therioaphis maculata 15 29 115 208
Uroleucon 120

[Homoptera: Cicadellidae]
Empoasca fabae 3129

[Orthoptera: Acrididae]
Unknown species 22

Cordyceps sp.
[Coleoptera: Scarabaeidae]
Popillia japonica 3718

Cordyceps heteropoda
[Homoptera: Cicadidae]
Cicadetta puer 1880

Cordyceps militaris
[Lepidoptera: Geometridae]
Unknown species 2416

Crypticola clavulifera
[Diptera: Ceratopogonidae]
Forcipomyia marksae 1940

Culicinomyces bisporalis
[Diptera: Culicidae]
Aedes kochi 1948 1949

Culicinomyces clavisporus
[Diptera: Ceratopogonidae]
Dasyhelea 2478
Forcipomyia marksae 2480 2481

[Diptera: Culicidae]
Unknown species 706 2622
Aedes rupestris 2471 2472 2473 2474 2475 2476 2477
Anopheles amictus hilli 644 645
Anopheles quadrimaculatus 372 582 583 584 585
Culisetia inconspicua 2479
Culisetia inornata 964

Engyodontium aranearum
[Araneida: Pholcidae]
Pholcus phalangoides 2929 2935

Entomophaga sp.
[Diptera: Ptychopteridae]
Ptychoptera contaminata 2535 2671

[Homoptera: Cicadellidae]
Empoasca kraemeri 1230
Nephotettix bipunctata cincticeps 1126

[Homoptera: Delphacidae]
Nilaparvata lugens 1881

[Orthoptera: Acrididae: Oedipodinae]
Aiolopus thalassinus tamulus 2083

Entomophaga asiatica
[Orthoptera: Acrididae]
Unknown species 1393
Parapodisma 1659

Entomophaga aulicae
[Diptera: Tipulidae]
Tipula 393

[Lepidoptera]
Unknown species 1140 1656

[Lepidoptera: Arctiidae]
Spilosoma niveum 2372 2373 2374

[Lepidoptera: Geometridae]
Enypia griseata 2000
Lambdina fiscellaria fiscellaria 1991 2900
Lambdina fiscellaria lugubrosa 1990
Rheumaptera hastata 2899

[Lepidoptera: Lasiocampidae]
Dendrolimus spectabilis 1655
Malacosoma disstria 3602

[Lepidoptera: Noctuidae]
Unknown species 3016
?Heliothis 251
Aedia leucomelas 198 998
Autographa gamma 2363 2365
Mamestra brassicae 1657 1751 2362 2367 2368 2369
Pseudaletia 1999

[Lepidoptera: Notodontidae]
Ellida caniplaga 2903
Heterocampa 2902
Heterocampa biundata 2905
Heterocampa guttivitta 2843 2904 3039 3212

[Lepidoptera: Pieridae]
Colias erate poliographus 2366

[Lepidoptera: Saturniidae]
Dryocampa rubicunda 2897

[Lepidoptera: Tortricidae]
Choristoneura fumiferana 51 164 165 166 167 168 172 1992 1993 1994 1995 1997 1998 2896 2898 2901

Entomophaga australiensis
[Homoptera: Cicadellidae]
Unknown species 743
Cicadella 328
Empoasca kraemeri 791

[Homoptera: Cicadidae]
Cicadetta puer 331 365

[Homoptera: Delphacidae]
Nilaparvata lugens 581

Entomophaga calopteni

[Orthoptera: Acrididae]

Melanoplus bivittatus 390 408 497 498 766

Melanoplus cuneatus 623 626 646

Melanoplus differentialis 2522

Melanoplus flavidus 383

Melanoplus packardii 625

Entomophaga conglomerata

[Diptera: Chironomidae]

Unknown species 2273

Entomophaga macleodii

[Orthoptera: Acrididae]

Camnula pellucida 496 618 619 620

621 624 628 629 765 767 768 769

773 774 777 778 779 3025

Dissosteira carolina 375 376 382 499

Entomophaga maimaiga

[Lepidoptera: Lymantriidae]

Lymantria dispar 1390 1391 1392 1400

1658 2370 2371 2775 2779 2780

3052 3053

Entomophaga praxibuli

[Orthoptera: Acrididae]

Prazibulus 840

Entomophaga tabanivora

[Diptera: Tabanidae]

Atylotus thoracis 627

Entomophthora sp.

[Homoptera: Aphididae]

Unknown species 999

Entomophthora chromaphidis

[Homoptera: Aphididae]

Acyrtosiphon kondoi 1860 1862 1863

Entomophthora culicis

[Diptera: Nematocera]

Unknown species 387

Entomophthora muscae

[Diptera]

Unknown species 392

[Diptera: Anthomyiidae]

Unknown species 2087 2088 2678

Delia 2089 2263 2264 2265 2266 2317

Delia antiqua 3074

Delia platura 707

Delia radicum 2665 2668 2670 2674

2675

[Diptera: Calliphoridae]

Pollenia rudis 651

[Diptera: Muscidae]

Musca domestica 454 556 557 803 2014

2172 2542 2543

[Diptera: Psilidae]

Psila rosae 2540 2541

[Diptera: Syrphidae]

Unknown species 826 2673

Entomophthora schizophorae

[Diptera: Psilidae]

Psila rosae 2667

Erynia sp.

[Coleoptera: Cantharidae]

Unknown species 2664

Rhagonycha fulva 2525 2536 2537 2538

2539 2553 2663

[Diptera]

Unknown species 876 880 884 2495

[Diptera: Brachycera]

Unknown species 1338

[Diptera: Chironomidae]

Unknown species 2507

[Diptera: Ephydriidae]

?*Hydrellia* 2097

[Homoptera: Aphididae]

Unknown species 2279

Brevicoryne brassicae 2294

Macrosiphum euphorbiae 2292

Therioaphis maculata 1666

[Lepidoptera]

Unknown species 1241

[Lepidoptera: Noctuidae]

Pseudoplusia includens 2027

[Lepidoptera: Plutellidae]

Plutella xylostella 983

[Lepidoptera: Tortricidae]

Eana argentana 1143

Erynia aquatica

[Diptera: Culicidae]

Aedes 750

Unknown species 764

Erynia conica

[Diptera: Chironomidae]

Unknown species 2274 2277 2405

[Diptera: Simuliidae]

Unknown species 1752 1753 2275

Simulium 1439

Erynia curvispora

[Diptera: Simuliidae]

Simulium 802

Unknown species 1754

Erynia ovispora

[Diptera: Psychodidae]

Unknown species 399 400

Erynia rhizospora

[Trichoptera]

Unknown species 219 801 1440 1441

1442 1443 2276

[Trichoptera: Hydropsychidae]

Unknown species 2407

Erynia sciarae

[Diptera: Mycetophilidae]

Unknown species 1870

Eryniopsis caroliniana

[Diptera: Tipulidae]

Tipula paludosa 640 641 642

Filobasidiella arachnophila

[Lepidoptera: Lymantriidae]

Lymantria dispar 2058

Furia americana

[Diptera]

Unknown species 742 1240 1242 2192 2194

Furia crustosa

[Lepidoptera]

Unknown species 2906

Furia ithacensis

[Diptera: Empididae]

Unknown species 1339 1340

[Diptera: Rhagionidae]

Symphoromyia hirta 663

Furia neopyralidarum

[Lepidoptera]

Unknown species 1145

Furia pieris

[Lepidoptera: Pieridae]

Pieris rapae 781

Furia virescens

[Hemiptera: Miridae]

Notosteira elongata 394

[Lepidoptera]

Unknown species 427

[Lepidoptera: Noctuidae]

Unknown species 470 1129

Fusarium sp.

[Acari: Ixodidae]

Boophilus 3296

[Coleoptera: Curculionidae]

Anthonomus musculus 3030 3031 3032

Chalcodermus aeneus 2568 2569

Sitona discoideus 1310

[Diptera: Bibionidae]

Unknown species 2252

[Diptera: Muscidae]

Musca domestica 1522

[Diptera: Psychodidae]

Lutzomyia 3382

[Hemiptera: Miridae]

Adelphocoris 1307 1641

[Homoptera: Aleyrodidae]

Bemisia tabaci 3668 3669 3670 3671

3672 3673 3674 3675 3676 3677

3678 3679

[Homoptera: Aphididae]

Unknown species 3704 3707

Rhopalosiphum padi 2337

Sitobion avenae 2333

[Homoptera: Cercopidae]

Aenolamia postica 3345

[Homoptera: Coccidae]

Unknown species 1828

Coccus viridis 2232

[Homoptera: Delphacidae]

Nilaparvata lugens 687

[Homoptera: Psyllidae]

Heteropsylla cubana 2302 2303

[Lepidoptera: Hyblaeidae]

Hyblaea puer 2595

[Lepidoptera: Lymantriidae]

Lymantria dispar 3532

[Lepidoptera: Noctuidae]
Spodoptera 2736
Spodoptera frugiperda 3300
[Lepidoptera: Phycitinae]
Emmalocera depressella 2418
[Lepidoptera: Plutellidae]
Plutella xylostella 2776

Fusarium acuminatum
[Orthoptera: Acrididae]
Unknown species 3218

Fusarium avenaceum
[Lepidoptera: Lymantriidae]
Lymantria dispar 2060

Fusarium coccophilum
[Homoptera: Diaspididae]
Melanaspis obscura 821
Lepidosaphes 2098

Fusarium lateritium
[Homoptera: Psyllidae]
Heteropsylla cubana 2304
[Hymenoptera: Ichneumonidae]
Unknown species 1331 1416

Fusarium merismoides
[Lepidoptera: Lymantriidae]
Lymantria dispar 2059

Fusarium moniliforme
[Homoptera: Diaspididae]
Melanaspis glomerata 2074

Fusarium moniliforme var. *intermedium*
[Homoptera: Delphacidae]
Nilaparvata lugens 3223

Fusarium nygamai
[Lepidoptera: Noctuidae]
Raghuva albipunctella 2316

Fusarium oxysporum
[Diptera: Anthomyiidae]
Delia radicum 1371

Fusarium polyphialidicum
[Lepidoptera: Lymantriidae]
Lymantria dispar 3692 3693 3694 3695 3696

Fusarium sambucinum
[Lepidoptera: Lymantriidae]
Lymantria dispar 3483

Fusarium semitectum
[Homoptera: Delphacidae]
Nilaparvata lugens 2053
[Homoptera: Psyllidae]
Heteropsylla incisa 2299 2300

Fusarium solani
[Diptera: Anthomyiidae]
Delia radicum 1148

Fusarium subglutinans
[Hemiptera: Lophopidae]
Pyrilla perpusilla 2143 2144
[Homoptera: Coccidae]
Pulvinaria elongata 2145
[Homoptera: Psyllidae]
Heteropsylla incisa 2301
[Lepidoptera: Pyralidae]
Chilo sacchariphagus indicus 2142
Scirpophaga excerptalis 2141

Gibellula sp.
[Araneida]
Unknown species 569 570 1669

Gibellula clavulifera var. *alba*
[Araneida: Salticidae]
Euophrys ?trivittata 1909

Gibellula pulchra
[Araneida]
Unknown species 1732

Hirsutella sp. 1
[Thysanoptera: Thripidae]
Taeniothrips inconsequens 2939 2940

Hirsutella sp.
[Acari]
Unknown species 2795 2796 2797 2798 2801 2802 2803
[Acari: Eriophyidae]
Abacarus hystrix 970
[Collembola]
Unknown species 2799
[Diptera: Sciomyzidae]
Sepedon sphegeus 1551
[Hemiptera: Miridae]
Cyrtorhinus lividipennis 2208 2209
[Homoptera: Cicadellidae]
Empoasca kraemeri 1625 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2992
[Homoptera: Delphacidae]
Nilaparvata lugens 568 1096
[Homoptera: Diaspididae]
Nuculaspis tsugae 1668
[Lepidoptera]
Unknown species 2581
[Thysanoptera: Thripidae]
Taeniothrips inconsequens 3546 3548 3553

Hirsutella brownorum
[Acari]
Unknown species 3509

Hirsutella citrififormis
[Homoptera: Cixiidae]
Myndus crudus 1035 1446
[Homoptera: Delphacidae]
Unknown species 2428
Nilaparvata lugens 490 532 591 684 1036 1062 1063 1064 1243 1244 1245 1246 1247 1248 1249 1250 1251 1252 1253 1254 1255 1256 1257 1258 1259 1436 1549 1550 1837 1908 1913 1917 1918 1919

2099 2100 2101 2102 2103 2346 2420 2422 2423 2426
[Homoptera: Psyllidae]
Heteropsylla cubana 2347 2598

Hirsutella gigantea
[Hymenoptera: Pamphiliidae]
Unknown species 30
[Lepidoptera: Tortricidae]
Choristoneura fumiferana 177 178

Hirsutella guyana
[Homoptera: Cicadellidae]
Unknown species 2352 2387
Empoasca kraemeri 878 879 881 882 883 2993

Hirsutella haptosporus
[Acari: Uropodina]
Unknown species 2226

Hirsutella insperata
[Homoptera: Aleyrodidae]
Dialeurodes citri 2396

Hirsutella nr. haptosporus
[Diptera: Itonididae]
Unknown species 2228

Hirsutella radiata
[Diptera: ?Lauaxaniidae]
Unknown species 1369

Hirsutella repens
[Homoptera: Delphacidae]
Nilaparvata lugens 2348 2359 2394

Hirsutella rhossiliensis
[Tylenchida: Criconeematidae]
Criconeemella curvata 2007
Criconeemella xenoplas 2006 2008
[Tylenchida: Heteroderidae]
Heterodera humuli 2894
Heterodera schachtii 2788 2789 2790 2791 2792 2794 2931 2932 2933

Hirsutella satumaensis
[Lepidoptera: Pyralidae]
Dioryctria sylvestrella 996

Hirsutella strigosa
[Homoptera: Delphacidae]
Nilaparvata lugens 2044
[Homoptera: Cicadellidae]
Nephotettix virescens 2197

Hirsutella subulata
[Lepidoptera: Microlepidoptea]
Unknown species 2227

Hirsutella thompsonii	Metarhizium album	1286 1290 1300 1304 1724 1725
[Acari]	[Homoptera: Cicadellidae]	1726 1727 1728 1729 1744 1745
Unknown species 2800	Unknown species 2081	1823 2038 2039 2421
[Acari: Eriophyidae]	<i>Cofana spectra</i> 2082	[Hymenoptera: Formicidae]
<i>Acalitus vaccinii</i> 254	<i>Nephotettix virescens</i> 1840 1941 1942	<i>Atta sexdens rubropilosa</i> 2560
<i>Colomerus novaehebridensis</i> 258 414	1943 2176 2178	<i>Formica atta</i> 2510
<i>Eriophyes guerreronis</i> 256 257	<i>Recilia dorsalis</i> 2177 2179	<i>Solenopsis</i> 2561
<i>Eriophyes sheldoni</i> 255 2459		[Isoptera]
<i>Phyllocoptruta oleivora</i> 137 241 253		Unknown species 2949 2951
259 2012 2464		[Isoptera: Rhinotermitidae]
[Acari: Tarsonemidae]	Metarhizium anisopliae	<i>Coptotermes formosanus</i> 3045
Unknown species 1947	[Coleoptera: Bruchidae]	[Lepidoptera]
[Acari: Tenuipalpidae]	Unknown species 932 954	Unknown species 1094
<i>Dolichotetranychus floridanus</i> 3323	[Coleoptera: Carabidae]	<i>Galactica</i> 552
	Unknown species 939 1901	[Lepidoptera: Bombycidae]
	[Coleoptera: Chrysomelidae]	<i>Bombyx mori</i> 703
	<i>Ceratomya arcuata</i> 724 760 2076 2077	[Lepidoptera: Crambidae]
	2635 2941	Unknown species 3064
	<i>Diabrotica</i> 2513	[Lepidoptera: Hepialidae]
Hirsutella versicolor	<i>Diabrotica speciosa</i> 1056	<i>Orycanus</i> 1187
[Homoptera: Membracidae]	[Coleoptera: Coccinellidae]	[Lepidoptera: Lyonetiidae]
Unknown species 1034 1037	<i>Coleomegilla maculata</i> 808	<i>Leucoptera scitella</i> 1116
	[Coleoptera: Curculionidae]	[Lepidoptera: Noctuidae]
Hirsutella verticilloides	<i>Chalcodermus aeneus</i> 725 929	<i>Heliothis zea</i> 1080
[Homoptera: Cicadellidae]	<i>Curculio caryae</i> 2575 3608	<i>Mocis</i> 587
<i>Idioscopus clypealis</i> 2599	<i>Listronotus oregonensis</i> 2981	<i>Spodoptera</i> 2735
	<i>Myllocerus discolor</i> 3603	[Lepidoptera: Nymphalidae]
	<i>Otiorynchus sulcatus</i> 817 818 820	<i>Chlosyne lacinia saundersii</i> 1057 1059
	1910	[Lepidoptera: Olethreutidae]
Humicola sp.	<i>Sitona discoideus</i> 819	<i>Carpocapsa pomonella</i> 1095
[Lepidoptera: Lymantriidae]	[Coleoptera: Elateridae]	[Lepidoptera: Pyralidae]
<i>Lymantria dispar</i> 2069	<i>Agriotes</i> 2107	<i>Ostrinia nubilalis</i> 1489
	<i>Agriotes sputator</i> 1377	[Lepidoptera: Tortricidae]
	<i>Conoderus</i> 23 1897 1903 2518	<i>Lobesia botrana</i> 1112
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[Araneida]	Unknown species 472 683	Unknown species 728
Unknown species 2002	<i>Ancognatha scarabaeoides</i> 797	[Orthoptera: Acrididae]
	<i>Aphodius tasmaniae</i> 346	<i>Austracris guttulosa</i> 324
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[Dorylaimida: Longidoridae]	<i>Melolontha melolontha</i> 977 1066	Unknown species 3611
<i>Xiphinema rivesi</i> 2003	<i>Popillia japonica</i> 1046 1280 1298 1878	<i>Ornebius kanetataki</i> 1009
	2548 3713 3720 3721	<i>Teleogryllus commodus</i> 435 436 437
	<i>Rhizotrogus majalis</i> 2547	438 439 440 441 442 443 444 445
	<i>Scapanes australis</i> 3604	446
Lagenidium giganteum	[Coleoptera: Tenebrionidae]	[Orthoptera: Gryllotalpidae]
[Diptera: Ceratopogonidae]	<i>Tribolium castaneum</i> 3388 3389	Unknown species 2786
<i>Forcipomyia marksae</i> 2529 2530 2531	[Hemiptera: Pentatomidae]	[Orthoptera: Tettigoniidae]
2532 2533	Unknown species 755	Unknown species 727
[Diptera: Culicidae]	<i>Nezara viridula</i> 1055	
Unknown species 748 3326	<i>Scotinophara coarctata</i> 1432 1435 1545	
<i>Aedes melanimon</i> 3327	1548 2341 2342 2343	
<i>Culex tarsalis</i> 1384	<i>Tibraca limbativentres</i> 2212 2213 2214	
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[Dorylaimida: Longidoridae]	<i>Deois</i> 2521	
<i>Xiphinema</i> 2004	<i>Deois flavopicta</i> 729 759 782 955 1044	
	1900 2517	
Leptolegnia chapmanii	<i>Mahanarva posticata</i> 1896 1898 2627	
[Diptera: Culicidae]	[Homoptera: Cicadellidae]	
<i>Culex</i> 2682	Unknown species 2353	
<i>Culex pipiens quinquefasciatus</i> 2681	<i>Nephotettix cincticeps</i> 2043	
<i>Mansonia titillans</i> 2562 2680	<i>Nephotettix virescens</i> 2153	
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<i>Magicalcada septendecim</i> 374		
Metarhizium sp.		
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Unknown species 2210 2224 2225		
[Lepidoptera: Pyralidae]		
<i>Pyrausta machaeralis</i> 2596		
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- Oryctes* 2156 2165 2166 2167
Oryctes rhinoceros 538
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Popillia japonica 3329 3330 3331 3332
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 3339 3340
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Strigoderma arboricola 1968
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Scaptosoma castanea 1448
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 [Homoptera: Cercopidae]
 Unknown species 3147 3307
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Nephotettix virescens 2106
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 Unknown species 2140
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Diatraea saccharalis 3290 3291 3292
 [Orthoptera: Acrididae]
Schistocerca gregaria 3127
- Metarhizium anisopliae* var. *majus*
 [Coleoptera: Scarabaeidae]
 Unknown species 1858 1859
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Oryctes rhinoceros 978 1946 2151 3145
Xyloryctes jamaicensis 297 298
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- Metarhizium flavoviride*
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 Unknown species 2023
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Zonocerus elegans 3391
Zonocerus variegatus 3606
- Metarhizium flavoviride* var. *minus*
 [Homoptera: Cicadellidae]
 Unknown species 2339 2948
Nephotettix virescens 1945
Recilia dorsalis 1546 1547
 [Homoptera: Delphacidae]
Nilaparvata lugens 1099 1271 1272
 1273 1274 1275 1276 1277 1279
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 1293 1294 1295 1296 1297 1301
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 [Orthoptera: Acrididae]
Ornithacris cavroisi 3341
- Mixed culture
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Corcyra cephalonica 2738
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- Mortierella clausenii*
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Lymantria dispar 2062
- Mortierella hyalina*
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Lymantria dispar 2061
- Myriodontium keratinophilum*
 [Isopoda: Oniscoidea]
Porcellio 368 386
- Neozygites* sp.
 [Acari: Tetranychidae]
Tetranychus urticae 662
- Neozygites tetranychii*
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- Nomuraea* sp.
 [Lepidoptera: Noctuidae]
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 Unknown species 1904
- Nomuraea rileyi*
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Cnaphalocrocis medinalis 1761 2174
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 [Araneida]
 Unknown species 2354
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 Unknown species 2350 2378
 [Hemiptera: Pentatomidae]
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 [Homoptera: Cicadellidae]
Recilia dorsalis 680
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Brassolis saphorae 2613 2620
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Natada michonta 2616 2617 2618
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Epiphyas postvittana 309
- Paecilomyces amoenoroseus*
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Deois flavopicta 2078
- Paecilomyces andoi*
 [Diptera: Cecidomyiidae]
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- Paecilomyces canadensis*
 [Coleoptera: Scarabaeidae]
Heptophylla picea 984
 [Lepidoptera: Lasiocampidae]
Gastropacha orientalis 990
- Paecilomyces farinosus*
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 Unknown species 2355
 [Coleoptera: Chrysomelidae]
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 [Coleoptera: Curculionidae]
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- [Hemiptera: Pentatomidae]
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Aleurocanthus woglumi 2954
Bemisia tabaci 3572 3573 3574 3575
3576 3577 3578 3579 3580 3581
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- [Lepidoptera]
Unknown species 3152
- [Lepidoptera: Arctiidae]
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3492 3493 3494 3495 3496 3497
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3524 3525 3526 3533 3595 3596
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- [Lepidoptera: Noctuidae]
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Unknown species 981
Chlosyne lacinia saundersii 1058 1065
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Resseliella odai 1686
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[Araneida]
Unknown species 2376
- [Coleoptera: Chrysomelidae]
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Lagria vilosa 722 723 744 2216 2217
2219 2220 2221 2952
- [Coleoptera: Scarabaeidae]
Popillia japonica 2679
- [Diptera]
Unknown species 887
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- [Homoptera: Aleyrodidae]
Bemisia 3313
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3699 3700
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Unknown species 3682
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Phenacoccus solani 2247
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Monophadnus elongatulus 1576
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1578 1579
- [Lepidoptera: Bombycidae]
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- [Lepidoptera: Plutellidae]
Plutella xylostella 2749
- [Lepidoptera: Pyralidae]
Diaphania hyalinata 3302
- Paecilomyces guaeensis**
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Unknown species 2152
- Paecilomyces javanicus**
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- [Homoptera: Aleyrodidae]
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- [Lepidoptera: Bombycidae]
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- Paecilomyces lilacinus**
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- [Coleoptera: Curculionidae]
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- [Hemiptera: Pentatomidae]
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- [Homoptera: Cercopidae]
Deois flavopicta 3481
- [Lepidoptera: Bombycidae]
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- Paecilomyces reniformis**
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- Paecilomyces tenuipes**
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- Paecilomyces viridis**
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- Paecilomyces sp. nov.**
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- Pandora blunckii**
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Athalia rosae 915 917 920 1715 1716
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- [Lepidoptera: Plutellidae]
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- Pandora bullata**
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- Pandora delphacis**
[Hemiptera: Miridae]
Unknown species 3062
- [Homoptera: Cicadellidae]
Unknown species 1238 1936
Empoasca fabae 3072 3093 3094 3095
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Nephotettix cincticeps 458 459 460 461
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Recilia dorsalis 659 660
- [Homoptera: Delphacidae]
Nilaparvata lugens 134 575 579 580
657 665 666 667 668 669 670 672
673 674 676 682 686 698 713 716
1124 1132 1133 1264 1268 1730
1731 2091

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- Pandora dipterigena**
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Unknown species 1887
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Unknown species 1422
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- Pandora neoaphidis**
[Hemiptera: Miridae]
Lygus 1570
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614 636 637 638 639 1606 1611
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- Pandora nr. echinospora**
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Chalcodermus bimaculatus 2950
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- Phialophora malorum**
[Lepidoptera: Lymantriidae]
Lymantria dispar 2072
- Phoma cava**
[Lepidoptera: Lymantriidae]
Lymantria dispar 2071
- Polycephalomycetes formosus**
[Coleoptera: Carabidae]
Calosoma 1424
- Pseudogibellula formicarum**
[Homoptera: Cercopidae]
Unknown species 2913
- Saprolegnia sp.**
[Diptera: Simuliidae]
Unknown species 179 180
- Schizangiella sp.**
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Elaphe 2237 2239
- Schizangiella serpentis**
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- Scopulariopsis sp.**
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- Sorosporella uvella**
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- Sporodiniella umbellata**
[Homoptera: Membracidae]
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- Sporothrix sp.**
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Thrips tabaci 3142
- Sporothrix insectorum**
[Hymenoptera: Formicidae]
Paltothyreus tarsatus 2909 2918
- Stachybotrys sp.**
[Homoptera: Aphididae]
Sitobion avenae 2863
- Sterile mycelium**
[Homoptera: Aleyrodidae]
Unknown species 3710 3711
[Homoptera: Aphididae]
Unknown species 3703 3705 3712
[Homoptera: Cicadellidae]
Unknown species 3702
[Lepidoptera: Lymantriidae]
Lymantria dispar 2073
- Strongwellsea castrans**
[Diptera: Anthomyiidae]
Delia radicum 3282 3485
- Tilachlidium sp.**
[Coleoptera: Elateridae]
Unknown species 2415
- Tilletiopsis sp.**
[Homoptera: Delphacidae]
Nilaparvata lugens 527 572 573
- Tolypocladium cylindrosporum**
[Diptera: Bibionidae]
Plecia nearctica 2912
[Diptera: Culicidae]
Unknown species 961 976 1027 1028
2911
Aedes australis 841
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[Lepidoptera: Noctuidae]
Unknown species 2777 2778

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Arachnocampa luminosa 2921

Tolypocladium niveum
[Acari: Oribatidae]
Mycobates 3278
[Diptera: Tachinidae]
Unknown species 3281
[Lepidoptera: Tortricidae]
Choristoneura fumiferana 3321

Torrubiella homopterorum
[Homoptera: Delphacidae]
Nilaparvata lugens 2045

Torrubiella ratticaudata
[Araneida: Salticidae]
Euophrys ?trivittata 1915 1916

Trichothecium sp.
[Hemiptera: Miridae]
Adelphocoris 1217 1223
[Homoptera: Cicadellidae]
Nephotettix bipunctata cincticeps 653

Trichothecium roseum
[Hemiptera: Miridae]
Adelphocoris 1212 1226 1308 1639 1642
[Homoptera: Aleyrodidae]
Unknown species 3708
[Lepidoptera: Lymantriidae]
Lymantria dispar 2055

Unidentified
[Aphelenchida: Aphelenchoididae]
Aphelenchoides 3735
[Araneida]
Unknown species 1419 3209
[Coleoptera]
Unknown species 1634
[Coleoptera: Chrysomelidae]
Leptinotarsa decemlineata 3724
[Coleoptera: Curculionidae]
Aracanthus 3478
Otiorynchus sulcatus 3715
Sternachus subignatus 3471
[Coleoptera: Scarabaeidae]
Popillia japonica 3714 3719 3722
Rhizotrogus majalis 2999
[Coleoptera: Scolytidae]
Hypothenemus hampei 3440
[Diptera]
Unknown species 1922
[Diptera: Culicidae]
Anopheles 2563
Anopheles gambiae 3380 3381
[Diptera: Psychodidae]
Lutzomyia 3123 3124 3378 3420 3421 3423 3424 3425 3427 3428
Lutzomyia longipalpis 3422
Lutzomyia saulensis 3413 3417 3419
Lutzomyia trapidoi 3426
[Diptera: Simuliidae]
Unknown species 3227 3228 3229 3230 3231 3232 3233 3235 3236 3245 3246 3247

[Hemiptera]
Unknown species 1423
[Homoptera: Aleyrodidae]
Dialeurodes citri 3304
[Homoptera: Aphididae]
Unknown species 1693 1694 3122 3125
Aphis fabae 2022
Metopolophium dirhodum 3368
Myzus nicotinae 3239
Rhopalosiphum padi 3374
[Homoptera: Cercopidae]
Prosapia simulans 3536
Zulia vilior costarricensis 3535
[Homoptera: Cicadellidae]
Empoasca fabae 3128
[Hymenoptera: Formicidae]
Solenopsis invicta 2640
[Hymenoptera: Ichneumonidae]
Cratichneumon lanius 1421
[Lepidoptera: Geometridae]
Hibernia defoliaria 1415 1417
Lambdina athasaria 3567 3568 3569
[Lepidoptera: Plutellidae]
Plutella xylostella 2752 2821
[Lepidoptera: Pyralidae]
Cnaphalocrocis medinalis 1703
Diatraea saccharalis 3298 3299
[Lepidoptera: Riodinidae]
Euselasia 3467 3468
[Thysanoptera: Thripidae]
Frankliniella occidentalis 3570
Taeniothrips inconsequens 3319 3560
[Trichoptera]
Unknown species 3242 3243 3244

Verticillium sp.
[Coleoptera]
Unknown species 2832
[Coleoptera: Curculionidae]
Hypera postica 1401 1402 1403
[Diptera]
Unknown species 2414
[Diptera: Tipulidae]
Unknown species 2329
[Homoptera: Aphididae]
Myzus nr. persicae 2323 2324 2325 2326
Sitobion avenae 2332
[Lepidoptera]
Unknown species 2822
[Lepidoptera: Lymantriidae]
Lymantria dispar 3531
[Thysanoptera: Thripidae]
Taeniothrips inconsequens 3547 3549 3550 3551 3552 3556 3561

Verticillium ?cephalosporum
[Coleoptera: Curculionidae]
Anthonomus musculus 3035

Verticillium ?lecanii
[Thysanoptera: Thripidae]
Taeniothrips inconsequens 3315 3316 3317

Verticillium balanoides
[Aphelenchida: Aphelenchoididae]
Aphelenchoides 3173

Verticillium chlamydosporium
[Coleoptera: Lagriidae]
Lagria villosa 2218

Verticillium coccosporum
[Lepidoptera: Lymantriidae]
Lymantria dispar 2064

Verticillium fungicola
[Lepidoptera: Lymantriidae]
Lymantria dispar 2065

Verticillium fusisporum
[Homoptera: Aleyrodidae]
Trialeurodes vaporariorum 923

Verticillium indicum
[Hymenoptera: Formicidae]
Anoplolepis longipes 2170

Verticillium insectorum
[Homoptera: Pseudococcidae]
Rhizoecus 2235

Verticillium lecanii
[Acari: Oribatidae]
Unknown species 1367
[Coleoptera: Chrysomelidae]
Pyrrhalta luteola 1505
[Coleoptera: Curculionidae]
Hypera postica 1328
[Coleoptera: Melyridae]
Malachius bipustulatus 1335
[Coleoptera: Scarabaeidae]
Unknown species 3314
[Diptera: Culicidae]
Aedes triseriatus 810
[Diptera: Psychodidae]
Lutzomyia saulensis 3418
[Homoptera: Aleyrodidae]
Unknown species 3709
Trialeurodes vaporariorum 972
[Homoptera: Aphididae]
Unknown species 974 2659
Brevicoryne brassicae 1787
Diuraphis noxia 2862 2877 2878 3000
Macrosiphum euphorbiae 204 2858
Myzus persicae 1026 3324
Pemphigus betae 3464
Rhopalosiphum nymphaeae 321
Sitobion avenae 2334 2859
Toxoptera citricida 2009 2460
[Homoptera: Coccidae]
Unknown species 2916
Coccus viridis 1774 2149 2150
Pulvinaria floccifera 980
Saissetia oleae 1029
[Homoptera: Lecanidae]
lecanium viridis 555
[Homoptera: Margarodidae]
Icerya purchasi 1033
[Hymenoptera: Ichneumonidae]
Unknown species 1330
[Lepidoptera: Bombycidae]
Bombyx mori 991
[Lepidoptera: Cossidae]
Cossula cossus 973 1102

[Lepidoptera: Lymantriidae]
Lymantria dispar 2066 3600 3601
[Lepidoptera: Pyralidae]
Ostrinia nubilalis 900
[Lepidoptera: Tortricidae]
Adoxophyes orana 994
Cydia pomonella 1032 1109
[Thysanoptera: Thripidae]
Unknown species 2923 3701
Frankliniella occidentalis 3683 3684
3685 3686 3687 3688 3689 3690
3691
Taeniothrips inconsequens 2930 3252
3253 3254 3255 3257 3258 3259
3260 3261 3262 3263 3264 3265
3266 3267 3268 3269 3270 3318
3554 3555 3557 3558 3559 3562
3563

Verticillium nr. *aranearum*
[Araneida]
Unknown species 1905

Verticillium psalliotiae
[Homoptera: Pseudococcidae]
Rhizoecus 2234
[Diptera: Psychodidae]
Lutzomyia sordelli 3416

Zoophthora sp.
[Dermaptera: Forficulidae]
Forficula auricularia 3486 3487 3488

Zoophthora anglica
[Coleoptera: Carabidae]
Trechus quadristriatus 1739
[Coleoptera: Elateridae]
Agriotes sputator 396 2505
[Hemiptera: Miridae]
Notosteira elongata 916 926

Zoophthora aphidis
[Homoptera: Aphididae]
Anoecia corni 425

Zoophthora lanceolata
[Diptera: Brachycera]
Unknown species 468
[Diptera: Nematocera]
Unknown species 426 469

Zoophthora occidentalis
[Homoptera: Aphididae]
Acyrtosiphon pisum 2841 3027 3028
3029 3071 3073
Macrosiphum euphorbiae 207

Zoophthora phalloides
[Homoptera: Aphididae]
Brevicoryne brassicae 2281
Myzus rannaculinum 352
Therioaphis maculata 351

Zoophthora phytonomi
[Coleoptera: Curculionidae]
Hypera punctata 202 2188
Hypera variabilis 113 191 192

Zoophthora radicans
[Coleoptera: Curculionidae]
Hypera variabilis 80 81
[Diptera]
Unknown species 388 1337 1921 2499
2500 2501 2503 2506 2523 2554
[Diptera: Anthomyiidae]
Delia radicum 2666 3489
[Diptera: Nematocera]
Unknown species 1336 1428
[Hemiptera: Miridae]
Dicyphus pallidus 389
[Homoptera: Aphididae]
Unknown species 195
Brachycaudus amygdalinus 75
Capitophorus 822
Drepanosiphum aceris 914 1130
Metopolophium dirhodum 2811
Therioaphis maculata 103 104 105 106
107 108 109 110 111 112 114 139
237 238 239 359 370 379 823

[Homoptera: Cercopidae]
Unknown species 800

[Homoptera: Cicadellidae]
Unknown species 1239 1263 1495 1587
1591 2196 2549 2551 2552
Empoasca 2240 2241 2242 2243 2244
2245 2246 2282 2283 2284 2285
2286 2287 2288 2289 3623
Empoasca fabae 1018 1019 1020 1021
1261 1262 1938 2400 2550 2716
2717 2718 2719 2720 2977 2978
2979 2980 3100 3104 3105 3283
3284 3376 3377 3390

Empoasca kraemeri 789 790 1227 1228
1229 1231 1232 1233 1234 1236
1237 1492 1493 1494 1496 1497
1498 1499 1500 1501 1502 1503
1504 1541 1542 1543 1544 1581
1582 1583 1584 1585 1586 1588
1589 1590 1593 1594 1595 1928
1929 1930 1931 1932 1933 1934
1935 1937 2994 2995 2996 3002
3003 3004 3005 3006 3007 3008
3009 3010 3011 3012 3013 3026
Empoasca vitis 2696 2700 2701 2702
2703 2706 2708 2709 2712 2713
3114 3116 3119 3149 3150 3159
3160 3162 3164 3165

Hauptida distinguenda 2256 2257 2258
2259 2260 2261 2262

Typhlocyba 3115 3170 3171

[Homoptera: Delphacidae]
Delphacodes striatella 1050
Nilaparvata lugens 685 1125 1136

[Homoptera: Psyllidae]
Psyllida etrioza 126
Trioza urticae 1719

[Hymenoptera: Diprionidae]
Neodiprion tsugae 13

[Lepidoptera]
Unknown species 404

[Lepidoptera: Geometridae]
Lambdina fuscicollis fuscicollis 72

[Lepidoptera: Noctuidae]
Sesamia inferens 2411

[Lepidoptera: Pieridae]
Pieris brassicae 1341 1342 1343 1344
1345 1346
[Lepidoptera: Plutellidae]
Plutella xylostella 1048 1100 2732 2893
3204 3205 3206
[Lepidoptera: Pyralidae]
Cnaphalocrocis medinalis 1699 2410
[Lepidoptera: Tortricidae]
Choristoneura fumiferana 21 44 45 50
52 88 141 142 143 144 145 146
163 221 222 223 224 225 226 227
228 229 230 231 232 233 234 235
407
Merophyas divulsana 1082
Ptycholoma aeriferana 1674 1675
Tortrix viridiana 68

Animalia

Arthropoda • Arachnida

Acari

- Unknown genus
USA, California
Hirsutella sp. 2795 2796 2797 2798
2801 2802 2803
Hirsutella thompsonii 2800
USA, New York
Hirsutella brownorum 3509

Acari: Eriophyidae

- Abacarus hystrix*
England
Hirsutella sp. 970
Acalitus vaccinii
USA, North Carolina
Hirsutella thompsonii 254
Colomerus novaehbridensis
Papua New Guinea
Hirsutella thompsonii 414 258
Eriophyes guerreronis
Ivory Coast
Hirsutella thompsonii 257
Jamaica
Hirsutella thompsonii 256
Eriophyes sheldoni
Zimbabwe
Hirsutella thompsonii 255 2459
Phyllocoptura oleivora
Argentina
Hirsutella thompsonii 2012 2464
USA, Florida
Hirsutella thompsonii 137 241 253
USA, Texas
Hirsutella thompsonii 259

Acari: Ixodidae

- Boophilus* sp.
Mexico
Metarhizium anisopliae var. *anisopliae* 3297
Fusarium sp. 3296
Ixodes scapularis
Unknown country
Aspergillus ochraceus 3325

Acari: Orbatidae

- Mycobates* sp.
Canada, Northwest Territories
Tolypocladium niveum 3278

Acari: Oribatidae

- Unknown genus
Poland
Verticillium lecanii 1367

Acari: Tarsonemidae

- Unknown genus
Philippines
Hirsutella thompsonii 1947

Acari: Tenuipalpidae

- Dolichotetranychus floridanus*
Costa Rica
Hirsutella thompsonii 3323

Acari: Tetranychidae

- Eotetranychus* sp.
USA, Florida
Cladosporium cladosporioides 3085
Tetranychus althaeae
Czechoslovakia
Neozygites tetranychii 2677
Tetranychus urticae
USA, North Carolina
Neozygites sp. 662

Acari: Uropodina

- Unknown genus
Poland
Hirsutella haptosporus 2226

Araneida

- Unknown genus
Unknown country
Unidentified 3209
France
Gibellula sp. 1669
Indonesia, Bali
Gibellula sp. 570
Indonesia, Sumatera Utara
Conidiobolus coronatus 567
Indonesia, Sumatera Utara, Sumatra
Gibellula sp. 569
Philippines
Paecilomyces fumosoroseus 2376
Paecilomyces sp. 2354
Poland
Unidentified 1419
Solomon Islands
Verticillium nr. *araneorum* 1905
Sri Lanka
Gibellula pulchra 1732
USA, New York
Hymenostilbe verrucosa 2002

Araneida: ?Argiopidae

- Unknown genus
Solomon Islands
Nomuraea atypicola 1904

Araneida: Pholcidae

- Pholcus phalangoideus*
USA, Ohio
Engyodontium araneorum 2929
2935

Araneida: Salticidae

- Euophrys ?trivittata*
Solomon Islands
Gibellula clavulifera var. *alba* 1909
Torrubiella ratticaudata 1915 1916

Arthropoda • Entognatha

Collembola

- Unknown genus
USA, California
Hirsutella sp. 2799

Arthropoda • Insecta

- Unknown genus
Unknown country
Beauveria bassiana 293
Brazil, Goiás
Beauveria bassiana 754
Brazil, Pará
Beauveria amorphae 2251
France
Beauveria bassiana 1980
Unidentified 1634
India
Beauveria brongniartii 2660
Metarhizium anisopliae var. *anisopliae* 3210
Mexico
Verticillium sp. 2832
Philippines
Beauveria bassiana 3197 3198 3199
Paecilomyces farinosus 2355
Poland
Beauveria bassiana 301
Haphochelus marginalis
France
Metarhizium anisopliae var. *anisopliae* 3148

Coleoptera: Anthicidae

- Anthicus floralis*
Poland
Beauveria bassiana 157

Coleoptera: Anthribidae

- Araecerus fasciculatus*
USA, Florida
Beauveria bassiana 413

Coleoptera: Bruchidae

- Unknown genus
Brazil, Mato Grosso
Metarhizium anisopliae 954
Brazil, Goiás
Metarhizium anisopliae 932
Caryedon serratus
France
Beauveria bassiana 1186

Coleoptera: Cantharidae

- Unknown genus
Denmark
Erynia sp. 2664
Rhagonycha fulva
Denmark
Erynia sp. 2525 2536 2537 2538
2539 2553 2663

Coleoptera: Carabidae

- Unknown genus
Brazil, Goiás
Metarhizium anisopliae 939
Brazil, Mato Grosso
Beauveria bassiana 952
Brazil, Pará
Metarhizium anisopliae 1901
France
Beauveria bassiana 1975

- Mexico
 Metarhizium anisopliae var. *anisopliae* 2469
USA, Washington
 Beauveria bassiana 3386
Calosoma sp.
 Poland
 Polycephalomyces formosus 1424
Trechus quadristriatus
 England
 Zoophthora anglica 1739
- Coleoptera: Cerambycidae
Unknown genus
 Brazil, Ceará
 Beauveria bassiana 785
Ecuador
 Beauveria bassiana 2557
Mexico
 Beauveria bassiana 319
USA, Rhode Island
 Beauveria bassiana 318
Aromia moscata
 Italy
 Beauveria bassiana 1559 1560 1561
 1562 1563
Moechotypa diphyssis
 Japan
 Beauveria bassiana 1678
Monochamus alternatus
 Japan
 Beauveria bassiana 1679
Nipphonoclea sp.
 Philippines
 Beauveria brongniartii 1431
Psacotheca hilaris
 Japan
 Beauveria brongniartii 1680
 Beauveria bassiana 1041
- Coleoptera: Chrysomelidae
Unknown genus
 Brazil, Goiás
 Beauveria bassiana 1971
Vietnam
 Beauveria bassiana 751
Yugoslavia, Serbia
 Beauveria bassiana 504
Cerotoma sp.
 Brazil, Mato Grosso
 Beauveria bassiana 951
Brazil, Paraná
 Beauveria bassiana 1458
Brazil, Rio de Janeiro
 Paecilomyces lilacinus 1951
Brazil, Santa Catarina
 Beauveria bassiana 1467
Cerotoma arcuata
 Brazil, Amazonas
 Beauveria bassiana 731 732 756
Brazil, Bahia
 Beauveria bassiana 2075
Brazil, Goiás
 Beauveria bassiana 931 934
 Metarhizium anisopliae 724 760
 2076 2077 2635 2941
- Crimissa* sp.
 Brazil, Ceará
 Beauveria bassiana 786 788 805
Diabrotica sp.
 Brazil
 Beauveria bassiana 3219
Brazil, Amazonas
 Beauveria bassiana 2512
Brazil, Goiás
 Beauveria bassiana 956 2938 2942
 Metarhizium anisopliae 2513
 Metarhizium anisopliae var. *anisopliae* 1885 2514
Brazil, Mato Grosso
 Beauveria bassiana 946 947 948 949
 950 982
Colombia
 Beauveria bassiana 721
Mexico
 Beauveria bassiana 3287
Diabrotica balteata
 Mexico
 Beauveria bassiana 3309
Diabrotica barberi
 USA, South Dakota
 Beauveria bassiana 2579
Diabrotica paranoense
 Brazil, Goiás
 Beauveria bassiana 739 752 758 809
Brazil, Mato Grosso
 Beauveria bassiana 937 938
Diabrotica speciosa
 Argentina
 Beauveria bassiana 2515
Brazil, Alagoas
 Beauveria bassiana 1954
Brazil, Bahia
 Beauveria bassiana 1961
 Metarhizium anisopliae var. *anisopliae* 1958
Brazil, Goiás
 Beauveria bassiana 928 1476 2625
 2626
Brazil, Paraná
 Beauveria bassiana 958 1060 1453
 1454 1455 1461 1462 1463 1466
 1469 2511 2520
 Metarhizium anisopliae 1056
Brazil, Rio Grande do Sul
 Beauveria bassiana 1456 1459 1460
 1464 1465 1475
Brazil, Santa Catarina
 Beauveria bassiana 1470 1471 1472
 1473
Diabrotica undecimpunctata
 USA, Oregon
 Beauveria bassiana 201
Diabrotica virgifera
 USA, Nebraska
 Beauveria bassiana 3111
Mexico
 Beauveria bassiana 2330
Galerucina sp.
 France
 Beauveria bassiana 2463
- Leptinotarsa decemlineata*
Unknown country
 Unidentified 3724
Canada, Québec
 Beauveria bassiana 2987 2988 2989
 2990 2991
Commonwealth of Independent States
 Beauveria bassiana 2695
France
 Beauveria bassiana 149 384 1982
 Scopulariopsis sp. 2327
Germany
 Beauveria bassiana 340
Italy
 Beauveria bassiana 1106
USA, Maine
 Beauveria bassiana 252 353
USA, New York
 Beauveria bassiana 534 535 1039
 1081 1619 1620 1621 1622 1623
 1624 1704 1705 1706 1707 1708
 1709 1710 1711 1712 1713 1721
 1722 1723 1749 1750 1775 1776
 1777 1778 1779 1780 1781 2030
 2031 2032
USA, Rhode Island
 Beauveria bassiana 317
USA, Washington
 Beauveria bassiana 344 1079
Yugoslavia
 Beauveria bassiana 505 506 507 510
Yugoslavia, Croatia
 Beauveria bassiana 509
Mauobupis morosi
 Argentina
 Beauveria bassiana 2509
Nodonata sp.
 Costa Rica
 Beauveria bassiana 3437 3438 3439
 3441 3442 3444 3446 3447 3450
 3451 3452 3455
Pachybrachis pallicarnis
 Malaysia
 Beauveria bassiana 547
Paropsis charybdis
 New Zealand
 Beauveria bassiana 3066
Pyrrhalta fuscipennis
 Japan
 Paecilomyces farinosus 1043
Pyrrhalta luteola
 France
 Beauveria bassiana 1509 1510 1511
 1518 1519
 Paecilomyces farinosus 1507 1508
 Paecilomyces fumosoroseus 1506
 Verticillium lecanii 1505
Spaethiella sp.
 Brazil, Amazonas
 Paecilomyces fumosoroseus 2956
Systema sp.
 Brazil, Goiás
 Beauveria bassiana 2079

- Zygogramma bicolorata*
India
 Metarhizium anisopliae var. *anisopliae* 2231
- Coleoptera: Coccinellidae**
Coccinella sp.
 USA, New York
 Beauveria bassiana 2033 2034
Coccinella septempunctata
 Unknown country
 Beauveria bassiana 3534
 USA, Michigan
 Beauveria bassiana 2580
Coleomegilla maculata
 Brazil, Alagoas
 Beauveria bassiana 1956
 Brazil, Goiás
 Metarhizium anisopliae 808
Cycloneda sanguinea
 Argentina
 Beauveria bassiana 2010
- Coleoptera: Curculionidae**
Unknown genus
 Indonesia
 Metarhizium sp. 2224
 USA, New York
 Beauveria bassiana 3667
Unknown genus
 Brazil, Goiás
 Beauveria bassiana 930
 Brazil, Paraná
 Beauveria bassiana 1061
 Indonesia, Sulawesi Selatan, Celebes
 Aspergillus nr. *parasiticus* 2173
 Metarhizium sp. 2210 2225
 Korea
 Beauveria bassiana 2040
 Papua New Guinea
 Scopulariopsis sp. 2169
Anthonomus grandis
 Brazil
 Beauveria sp. 1835
 Brazil, São Paulo
 Beauveria bassiana 1966 2559 2638
 2639 2945 2946
Anthonomus musculus
 USA, Massachusetts
 Beauveria bassiana 3037
 Penicillium sp. 3036
 Verticillium ?*cephalosporum* 3035
 USA, New Jersey
 Fusarium sp. 3030 3031 3032
Aracanthus sp.
 Brazil, Rio Grande do Sul
 Unidentified 3478
 Brazil, Ceará
 Beauveria bassiana 753
Ceutorhynchus litura
 Unknown country
 Beauveria bassiana 3403
Ceutorhynchus macula-alba
 Czechoslovakia
 Metarhizium flavoviride 2133
Ceutorhynchus napi
 Switzerland
 Conidiobolus coronatus 1572 1573
 1574 1575
Chalcodermus sp.
 Brazil, Mato Grosso
 Beauveria bassiana 941 942 943
 953
Chalcodermus aeneus
 Brazil, Goiás
 Beauveria bassiana 733 734 735 736
 738
 Metarhizium anisopliae 725 929
 USA, Georgia
 Beauveria bassiana 336 337
 Fusarium sp. 2568 2569
Chalcodermus bimaculatus
 Brazil, Goiás
 Penicillium sp. 2950
Conotrachelus nenuphar
 Unknown country
 Beauveria bassiana 1016
Cosmopolites sp.
 Brazil
 Beauveria bassiana 1833
Cosmopolites sordidus
 Brazil, Espírito Santo
 Beauveria bassiana 1483
Curculio caryae
 USA
 Metarhizium anisopliae 3608
 USA, Arkansas
 Sorospora *uvella* 1123
 USA, Georgia
 Beauveria bassiana 2676
 USA, South Carolina
 Metarhizium anisopliae 2575
Cyrtopistomus castaneus
 USA, Kentucky
 Beauveria bassiana 2271 2270
Diaprepes abbreviata
 Unknown country
 Beauveria bassiana 433
 USA, Florida
 Beauveria bassiana 412 416
 Paecilomyces lilacinus 410
Geraeus senilis
 Mexico
 Beauveria bassiana 3310 3311
 Metarhizium anisopliae var. *anisopliae* 3305 3306 3308
Hypera postica
 France
 Acremonium furcatum 1372
 Aphanocladium album 1329
 Beauveria bassiana 1389 1398 1399
 1515
 Beauveria sp. 1327
 Verticillium lecanii 1328
 Verticillium sp. 1401 1402 1403
Hypera punctata
 USA, New York
 Zoophthora phytonomi 202
 USA, Delaware
 Zoophthora phytonomi 2188
Hypera variabilis
 Israel
 Conidiobolus osmodes 79
 Zoophthora phytonomi 113 191 192
 Zoophthora radicans 80 81
Larinus sp.
 Switzerland
 Beauveria bassiana 2694
Listronotus oregonensis
 Canada, Québec
 Beauveria bassiana 2983 2984 2985
 2986
 Metarhizium anisopliae 2981
Litodactylus leucogaster
 USA, Florida
 Paecilomyces javanicus 322
Metamasius sp.
 Colombia
 Beauveria bassiana 842
Metamasius hemipterus
 Brazil, Paraná
 Beauveria bassiana 2642
Myllocerus discolor
 India
 Metarhizium anisopliae 3603
Oryzophagus oryzae
 Brazil, Rio Grande do Sul
 Beauveria bassiana 3098
Otiiorhynchus sulcatus
 Unknown country
 Unidentified 3715
 France
 Beauveria bassiana 813 814 815
 1073 1074 1075
 Metarhizium anisopliae 817 818 820
 Metarhizium flavoviride 1184 2024
 Germany
 Metarhizium anisopliae 1910
 New Zealand
 Beauveria bassiana 3065
 USA, Oregon
 Paecilomyces farinosus 2937
Premnotrypes suturicallus
 Peru
 Beauveria bassiana 1969
Premnotrypes vorax
 Colombia
 Beauveria bassiana 2248
 Paecilomyces farinosus 799
Shirahoshizo insidiosus
 Japan
 Beauveria sp. 1681
Sitona sp.
 France
 Beauveria bassiana 1647
 New Zealand
 Beauveria bassiana 3063
Sitona discoideus
 France
 Beauveria bassiana 816 1185 1191
 Metarhizium anisopliae 819
 Morocco
 Beauveria bassiana 1153 1154 1155
 1163 1164 1171 1172 1173 1174
 1175 1176 1177 1178 1179 1180
 1181 1183 1188 1189 1190 1309

1311 1312 1313 1811 1815 1816
 1817 1818 1819 1820 1821
Fusarium sp. 1310
Sitona humeralis
 France
Beauveria bassiana 1491
Sitona lineatus
 France
Beauveria bassiana 1156 1157 1158
 1159 1160 1161 1162 1165 1167
 1168 1169 1170 1182 1192 1193
 1194 1306
Sternechus subsignatus
 Brazil, Paraná
Beauveria bassiana 1450
Metarhizium anisopliae var. *anisopliae* 1989
 Brazil, Rio Grande do Sul
 Unidentified 3471

Coleoptera: Elateridae
 Unknown genus
 Brazil, Ceará
Beauveria bassiana 784 804
 France
Beauveria bassiana 150
 Japan
Tilachlidium sp. 2415
Agriotes sp.
 USA, Oregon
Metarhizium anisopliae 2107
Agriotes sputator
 Denmark
Zoophthora anglica 2505
 Switzerland
Metarhizium anisopliae 1377
Zoophthora anglica 396
Athalia rosae
 Switzerland
Pandora blunckii 915 917 920 1715
 1716 1717 1718
Conoderus sp.
 New Zealand
Metarhizium anisopliae 2518
 USA
Metarhizium anisopliae 1903
 USA, California
Metarhizium anisopliae 1897
 USA, North Carolina
Metarhizium anisopliae 23

Coleoptera: Lagriidae
Lagria vilosa
 Brazil, Alagoas
Paecilomyces farinosus 1957
 Brazil, Goiás
Beauveria bassiana 2961
Paecilomyces amoenoroseus 2958
 2959 2960
Paecilomyces fumosoroseus 722 723
 744 2216 2217 2219 2220 2221
 2952
Paecilomyces sp. 741
Verticillium chlamydosporium 2218

Coleoptera: Languriidae
 Unknown genus
 Costa Rica
Beauveria bassiana 3457

Coleoptera: Melyridae
Malachius bipustulatus
 Poland
Verticillium lecanii 1335

Coleoptera: Nitidulidae
 Unknown genus
 Australia
Beauveria bassiana 325

Coleoptera: Pythidae
Pytho sp.
 Canada, British Columbia
Beauveria bassiana 1854

Coleoptera: Rhizophagidae
Rhizophagus grandis
 Belgium
Beauveria bassiana 1848

Coleoptera: Scarabaeidae
 Unknown genus
 Australia
Metarhizium anisopliae 472
 Brazil, Federal District
Metarhizium anisopliae var. *anisopliae* 3479
 Papua New Guinea
Metarhizium anisopliae var. *anisopliae* 2162 2163
 Poland
Metarhizium anisopliae var. *majus*
 1858 1859
 PR China
Metarhizium anisopliae 683
 USA, Vermont
Verticillium lecanii 3314
Ancognatha scarabaeoides
 Colombia
Beauveria bassiana 2249 2250
Metarhizium anisopliae 797
Anomala costata
 Japan
Beauveria brongniartii 985 1676
Anomala cuprea
 Japan
Beauveria bassiana 1683
Beauveria amorphia 1682
Aphodius tasmaniae
 Australia
Metarhizium anisopliae 346
 New Zealand
Beauveria bassiana 3070
Costelytra zealandica
 New Zealand
Beauveria bassiana 3055
Beauveria brongniartii 3054
Metarhizium anisopliae 3056 3057
Cylcocephala signaticolis
 Argentina
Paecilomyces farinosus 2973

Heptophylla picea
 Japan
Paecilomyces canadensis 984
Lachnosterna morosa
 Japan
Beauveria sp. 1685
Melolontha melolontha
 France
Beauveria brongniartii 617 979
Metarhizium anisopliae 977
 Switzerland
Beauveria brongniartii 1067 1068
 1069 1070 1071 1072 1076 1077
Metarhizium anisopliae 1066

Oryctes sp.
 Papua New Guinea
Metarhizium anisopliae var. *anisopliae* 2156 2165 2166 2167
 Philippines
Metarhizium anisopliae var. *majus*
 1914
Oryctes rhinoceros
 France
Metarhizium anisopliae var. *majus*
 978 3145
 Indonesia, Jawa Barat, Java
Metarhizium anisopliae var. *majus*
 2151
 Philippines
Metarhizium anisopliae var. *majus*
 1946
 Thailand
Metarhizium anisopliae var. *anisopliae* 538
Phyllophaga ?anzia
 Canada
Metarhizium anisopliae var. *anisopliae* 2134 2135 2136 2137 2138
 2139
Popillia japonica
 Unknown country
Beauveria bassiana 3716 3717
Cordyceps sp. 3718 3714 3719
 Japan
Metarhizium anisopliae 1046
 Portugal
Metarhizium anisopliae var. *anisopliae* 3329
Paecilomyces fumosoroseus 2679
 USA, Connecticut
Metarhizium anisopliae 3713 3720
 3721
 Unidentified 3722
 USA, New York
Metarhizium anisopliae 1280 1298
 1878 2548
Metarhizium anisopliae var. *anisopliae* 3330 3331 3332 3333 3334
 3335 3336 3337 3338 3339 3340

Rhizotrogus majalis
 USA, New York
Metarhizium anisopliae 2547
Metarhizium anisopliae var. *anisopliae* 3108 3211
 Unidentified 2999

Scapanes australis
Papua New Guinea
Metarhizium anisopliae 3604
Strigoderma arboricola
USA, Michigan
Metarhizium anisopliae var. *anisopliae* 1968
Xyloryctes jamaicensis
India
Beauveria sp. 2412
Western Samoa
Metarhizium anisopliae var. *majus*
297 298

Coleoptera: Scolytidae

Unknown genus
Switzerland
Beauveria bassiana 1566 1567
USA, Hawaii
Beauveria bassiana 3040
Dendroctonus ponderosae
Canada, British Columbia
Beauveria bassiana 1853 1849
Dendroctonus rufipennis
Canada, British Columbia
Beauveria bassiana 1017
Dryocoetes confusus
Canada, British Columbia
Beauveria bassiana 1852
Hypothenemus hampei
Brazil, São Paulo
Beauveria bassiana 1480
Kenya
Beauveria bassiana 2685 2686 2687
Mexico
Beauveria bassiana 2693
Nicaragua
Beauveria bassiana 3443 3445 3448
3453
Unidentified 3440
Togo
Beauveria bassiana 2688 2689 2690
2691 2692
Ips sp.
Canada, British Columbia
Beauveria bassiana 1855

Coleoptera: Staphylinidae

Unknown genus
USA, Nebraska
Beauveria bassiana 3112

Coleoptera: Tenebrionidae

Unknown genus
Brazil, Ceará
Beauveria bassiana 757 783 787
Tribolium castaneum
USA, Washington
Metarhizium anisopliae 3388 3389

Dermaptera

Unknown genus
Colombia
Beauveria bassiana 796

Dermaptera: Forficulidae

Forficula auricularia
Brazil, Federal District
Beauveria bassiana 3018
Denmark
Zoophthora sp. 3486 3487 3488

Dictyoptera: Blattellidae

Blattella germanica
Unknown country
Candida sp. 1924 1925 1926
USA, Maryland
Candida sp. 1877

Dictyoptera: Blattidae

Periplaneta americana
USA, Louisiana
Candida sp. 1857

Diptera

Unknown genus
Brazil, Bahia
Beauveria bassiana 1962
Brazil, Ceará
Erynia sp. 876 880 884
Brazil, Goiás
Furia americana 742 2192 2194
Brazil, Paraná
Furia americana 1240 1242
Denmark
Erynia sp. 2495
Zoophthora radicans 2499 2500
2501 2503 2506 2523 2554
France
Paecilomyces fumosoroseus 887
India
Verticillium sp. 2414
Indonesia, Yogyakarta, Java
Paecilomyces sp. 2350 2378
Israel
Pandora nr. *echinospora* 138
Poland
Conidiobolus thromboides 86 87
Zoophthora radicans 1337
Sri Lanka
Beauveria bassiana 2454
Switzerland
Entomophthora muscae 392
Pandora dipterigena 1720
Zoophthora radicans 388
USA, Maine
Pandora dipterigena 131
USA, New York
Pandora dipterigena 1923
Unidentified 1922
Zoophthora radicans 1921

Diptera: ?Lauaxaniidae

Unknown genus
Poland
Hirsutella radiata 1369

Diptera: ?Sciaridae

Unknown genus
USA, New York
Pandora dipterigena 1887

Diptera: ?Stratiomyidae

Unknown genus
Indonesia, Jawa Barat, Java
Paecilomyces fumosoroseus 2425

Diptera: Anthomyiidae

Unknown genus
Denmark
Conidiobolus sp. 2494
Entomophthora muscae 2678
France
Entomophthora muscae 2087 2088
Delia sp.
France
Entomophthora muscae 2089 2263
2264 2265 2266 2317
Delia antiqua
France
Beauveria bassiana 1864 1865 1866
USA, New York
Entomophthora muscae 3074
Delia platura
England
Entomophthora muscae 707
Delia radicum
Canada, Québec
Beauveria bassiana 1151
Fusarium oxysporum 1371
Fusarium solani 1148
Denmark
Conidiobolus sp. 2672
Entomophthora muscae 2665 2668
2670 2674 2675
Strongwellsea castrans 3282 3485
Zoophthora radicans 2666 3489

Diptera: Bibionidae

Unknown genus
France
Fusarium sp. 2252
Plecia nearctica
USA, Florida
Tolypocladium cylindrosporum
2912

Diptera: Bombyliidae

Unknown genus
Costa Rica
Aspergillus flavus 3430

Diptera: Brachycera

Unknown genus
France
Zoophthora lanceolata 468
Poland
Basidiobolus haptospora 1347
Erynia sp. 1338
Pandora dipterigena 1422

Diptera: Calliphoridae

Calliphora sp.
France
Paecilomyces fumosoroseus 1646
Beauveria bassiana 1630
Lucilia illustris
France
Scopulariopsis sp. 2328

- Phaenicia sericata*
 USA, Massachusetts
Pandora bullata 116
Pollenia rudis
 USA, New York
Entomophthora muscae 651
- Diptera: Cecidomyiidae**
Resseliella odai
 Japan
Paecilomyces flavovirescens 1686
Paecilomyces andoi 1684
- Diptera: Ceratopogonidae**
Dasyhelea sp.
 Australia
Culicinomyces clavisporus 2478
Forcipomyia marksae
 Australia
Crypticola clavulifera 1940
Culicinomyces clavisporus 2480
 2481
Lagenidium giganteum 2529 2530
 2531 2532 2533
- Diptera: Chironomidae**
 Unknown genus
 England
Erynia conica 2405
Erynia sp. 2507
 USA, New York
Entomophaga conglomerata 2273
Erynia conica 2274 2277
- Diptera: Culicidae**
 Unknown genus
 Australia
Culicinomyces clavisporus 2622
 Colombia
Lagenidium giganteum 3326
 Czechoslovakia
Tolypocladium cylindrosporum 961
 New Zealand
Tolypocladium cylindrosporum 976
 1027 1028 2911
 USA, New York
Erynia aquatica 764
 USA, North Carolina
Culicinomyces clavisporus 706
Lagenidium giganteum 748
Aedes sp.
 USA, New York
Erynia aquatica 750
Aedes albifasciatus
 Argentina
Paecilomyces farinosus 2971
Aedes australis
 New Zealand
Tolypocladium cylindrosporum 841
Aedes crinifer
 Argentina
Metarhizium anisopliae var. *anisopliae* 2974
Aedes kochi
 Australia
Culicinomyces bisporalis 1948 1949
- Aedes melanimon*
 USA, California
Lagenidium giganteum 3327
Aedes rupestris
 Australia
Culicinomyces clavisporus 2471
 2472 2473 2474 2475 2476 2477
Aedes sierrensis
 USA, California
Paecilomyces farinosus 1939
Tolypocladium cylindrosporum 705
 1580
Aedes triseriatus
 USA, Kentucky
Verticillium lecanii 810
Anopheles sp.
 USA, Florida
 Unidentified 2563
Anopheles amictus hilli
 Australia
Culicinomyces clavisporus 645 644
Anopheles gambiae
 Mali
 Unidentified 3380 3381
Anopheles quadrimaculatus
 USA, North Carolina
Culicinomyces clavisporus 372 582
 583 584 585
Culex sp.
 USA, Florida
Leptolegnia chapmanii 2682
Culex pipiens pipiens
 Czechoslovakia
Conidiobolus thromboides 70
Culex pipiens quinquefasciatus
 USA, South Carolina
Leptolegnia chapmanii 2681
Culex tarsalis
 USA, California
Lagenidium giganteum 1384
Culex territans
 USA, Louisiana
Lagenidium giganteum 749
Culiseta inconspicua
 Australia
Culicinomyces clavisporus 2479
Culiseta inornata
 Canada, Alberta
Culicinomyces clavisporus 964
Culiseta melanura
 USA, North Carolina
Lagenidium giganteum 373
Mansonia titillans
 USA, Florida
Leptolegnia chapmanii 2680 2562
- Diptera: Empididae**
 Unknown genus
 Poland
Furia ithacensis 1340 1339
- Diptera: Ephydriidae**
 ?*Hydrellia* sp.
 Indonesia, Jawa Barat, Java
Metarhizium anisopliae var. *anisopliae* 2105
Erynia sp. 2097
- Diptera: Heliomyzidae**
 Unknown genus
 USA, Maine
Conidiobolus thromboides 5
- Diptera: Itonididae**
 Unknown genus
 Poland
Hirsutella nr. *haptosporus* 2228
- Diptera: Muscidae**
 Unknown genus
 Brazil, Alagoas
Beauveria bassiana 1955
Musca autumnalis
 France
Beauveria bassiana 1514
Paecilomyces fumosoroseus 1626
Musca domestica
 Denmark
Entomophthora muscae 2542 2543
 France
Fusarium sp. 1522
Paecilomyces fumosoroseus 1644
 1645 1867 1868
 USA, California
Entomophthora muscae 2172
 USA, New York
Beauveria bassiana 2953
Entomophthora muscae 454 556 557
 803 2014
- Diptera: Mycetophilidae**
 Unknown genus
 Unknown country
Erynia sciarae 1870
Arachnocampa luminosa
 New Zealand
Tolypocladium extinguens 2921
- Diptera: Nematocera**
 Unknown genus
 Poland
Zoophthora radicans 1336 1428
 Switzerland
Entomophthora culicis 387
Pandora dipterigena 397
Zoophthora lanceolata 426 469
- Diptera: Psilidae**
Psila rosae
 Denmark
Conidiobolus pseudapiculatus 2493
 2496 2497 2502
Entomophthora muscae 2540 2541
Entomophthora schizophorae 2667
- Diptera: Psychodidae**
 Unknown genus
 Switzerland
Erynia ovispora 399 400
Lutzomyia sp.
 Costa Rica
 Unidentified 3123 3124 3420 3421
 3423 3424 3425 3427 3428
 Guatemala
Conidiobolus coronatus 3379
Fusarium sp. 3382 3378

- Lutzomyia longipalpis*
Costa Rica
Unidentified 3422
- Lutzomyia saulensis*
Costa Rica
Unidentified 3413 3417 3419
Verticillium lecanii 3418
- Lutzomyia sordelli*
Costa Rica
Conidiobolus coronatus 3414 3415
Verticillium psalliotiae 3416
- Lutzomyia trapidoi*
Costa Rica
Unidentified 3426
- Phlebotomus papatasi*
England
Beauveria bassiana 2972
- Diptera: Ptychopteridae**
Ptychoptera contaminata
Denmark
Conidiobolus sp. 2498 2535 2671
- Diptera: Rhagionidae**
Symphoromyia hirta
USA, New York
Furia ithacensis 663
- Diptera: Sarcophagidae**
Neobullieria citellivora
Canada, Alberta
Aspergillus flavus 3144
- Diptera: Sciaridae**
Unknown genus
Switzerland
Batkoa apiculata 919 927 1660 1661
Bradysia paupera
Denmark
Batkoa apiculata 3224 3225 3226
- Diptera: Sciomyzidae**
Sepedon sphegeus
Philippines
Hirsutella sp. 1551
- Diptera: Simuliidae**
Unknown genus
Canada, Québec
Unidentified 3227 3228 3229 3230
3231 3232 3233 3235 3236 3245
3246 3247
- Switzerland
Erynia conica 1752 1753
Erynia curvispora 1754
USA, Maine
Saprolegnia sp. 179 180
USA, New York
Erynia conica 2275
- Simulium* sp.
England
Erynia conica 1439
USA, New York
Erynia curvispora 802
- Simulium venustum*
USA, Maine
Coelomycidium simulii 218
- Diptera: Syrphidae**
Unknown genus
Denmark
Entomophthora muscae 2673
USA, New York
Entomophthora muscae 826
- Diptera: Tabanidae**
Atylotus thoracis
USA, New York
Entomophaga tabanivora 627
- Diptera: Tachinidae**
Unknown genus
Canada, New Brunswick
Tolypocladium niveum 3281
France
Beauveria bassiana 1150
Poland
Paeclomyces farinosus 1348 1349
- Diptera: Tipulidae**
Unknown genus
France
Verticillium sp. 2329
Tipula sp.
Switzerland
Entomophaga aulicae 393
Tipula paludosa
Switzerland
Batkoa gigantea 214 215 403
Eryniopsis caroliniana 640 641 642
- Hemiptera**
Unknown genus
Poland
Unidentified 1423
- Hemiptera: Coreidae**
Leptoglossus fulvicornis
USA, Florida
Beauveria bassiana 3086
- Hemiptera: Cydnidae**
?Cirtoneus sp.
Brazil, Goiás
Metarhizium anisopliae var. *anisopliae* 1952
Scaptocoris castanea
Brazil, Goiás
Metarhizium anisopliae var. *anisopliae* 1448
- Hemiptera: Lophopidae**
Pyrilla perpusilla
India
Fusarium subglutinans 2143 2144
- Hemiptera: Lygaeidae**
Blissus leucopterus
USA, Kansas
Beauveria bassiana 792 2430
Nysius vinitor
Australia
Beauveria bassiana 300
- Hemiptera: Mesoveliidae**
Mesovelia mulsanti
USA, Florida
Beauveria bassiana 320
- Hemiptera: Miridae**
Unknown genus
Costa Rica
Beauveria bassiana 3449 3454 3456
Indonesia, Jawa Barat, Java
Pandora nr. *delphacis* 2132
USA, New York
Pandora delphacis 3062
Adelphocoris sp.
Austria
Beauveria bassiana 1533 1534 1535
1536 1537 1538 1539 1540 1635
1636 1637 1638 1640 1643
Fusarium sp. 1641
Trichothecium roseum 1639 1642
France
Beauveria bassiana 1516 1517 1523
1524 1650 1789 1790 1791 1792
1793 1794 1795 1796 1797 1798
1799 1800 1801
Italy
Beauveria bassiana 1525 1526 1527
1528 1529 1531
Beauveria sp. 1195 1196 1197 1198
1199 1200 1201 1202 1203 1204
1205 1206 1207 1208 1209 1210
1211 1213 1214 1215 1216 1218
1219 1220 1221 1222 1224 1307
Paeclomyces fumosoroseus 1530
1532
Trichothecium roseum 1212 1226
1308
Trichothecium sp. 1217 1223
Cyrtorhinus lividipennis
Philippines
Hirsutella sp. 2208 2209
Dicyphus pallidus
Switzerland
Zoophthora radicans 389
Lygus sp.
France
Beauveria bassiana 1394 1395 1396
1397 1404 1405 1406 1407 1408
1409 1410 1411 1412 1413 1414
1520 1521 1648 1649 2318 2319
2320 2321 2322 2458 2462
Greece
Beauveria bassiana 1802 1803 1812
1822
Spain
Beauveria bassiana 886 1804 1805
1806 1807 1808 1809 1810 1813
1814
USA, New York
Pandora neoaphidis 1570
Lygus lineolaris
France
Beauveria bassiana 1317 1318 1319
1320 1321 1322 1323 1324 1325
Lygus pratensis
France
Beauveria bassiana 2461
Notosteira elongata
Switzerland
Furia virescens 394
Zoophthora anglica 916 926

Hemiptera: Nabidae

Nabis sp.
Austria
Beauveria bassiana 1988

Hemiptera: Pentatomidae

Unknown genus
Austria
Beauveria bassiana 1973 1974
Brazil, Amazonas
Metarhizium anisopliae 755
Brazil, Goiás
Beauveria bassiana 737
Brazil, Mato Grosso
Beauveria bassiana 944
Costa Rica
Paecilomyces fumosoroseus 3429
France
Beauveria bassiana 1984
Malaysia
Paecilomyces farinosus 531
Euschistus heros
Brazil, Goiás
Beauveria bassiana 1478
Nezara viridula
Argentina
Beauveria bassiana 2011 2457 2516
Brazil, Paraná
Beauveria bassiana 1054
Metarhizium anisopliae 1055
Brazil, Santa Catarina
Beauveria bassiana 1474
Brazil, São Paulo
Paecilomyces sp. 3101
Oebalus poecilus
Brazil, Goiás
Beauveria bassiana 2191
Podisus sp.
Brazil, Paraná
Beauveria bassiana 1457 2519
Scotinophara coarctata
Malaysia
Paecilomyces farinosus 763
Paecilomyces lilacinus 1552
Philippines
Metarhizium anisopliae 1432 1435
1545 1548 2341 2342 2343
Tibraca limbativentres
Brazil, Goiás
Beauveria bassiana 933
Metarhizium anisopliae 2212 2213
2214
Metarhizium anisopliae var. *anisopliae* 1882 1883
Paecilomyces amoenoroseus 2215

Hemiptera: Rhopalidae

Leptocoris sp.
Indonesia, Lombok Island
Beauveria bassiana 560
Indonesia, Yogyakarta, Java
Beauveria bassiana 566
Leptocoris oratorius
Philippines
Beauveria bassiana 1269 1270

Hemiptera: Tingidae

Corythucha ciliata
France
Beauveria bassiana 812

Homoptera

Unknown genus
Colombia
Aschersonia turbinata 1030
Unknown genus
Mexico
Aschersonia sp. 3015

Homoptera: ?Aphididae

Unknown genus
Poland
Conidiobolus obscurus 243

Homoptera: Aleyrodidae

Unknown genus
Mexico
Aschersonia sp. 3014
Nepal
Cladosporium sp. 3706 3711
Spain
Sterile mycelium 3710
Trichothecium roseum 3708
Verticillium lecanii 3709
USA, Florida
Aschersonia aleyrodii 430 432
Aschersonia goldiana 431
Aglaia odoratissima
Indonesia, Jawa Barat, Java
Aschersonia aleyrodii 2154
Aleurocanthus woglumi
USA, Florida
Paecilomyces farinosus 2954

Bemisia sp.

Mexico
Paecilomyces fumosoroseus 3313
Paecilomyces javanicus 3303
Bemisia tabaci
Unknown country
Paecilomyces fumosoroseus 3408
India
Aspergillus sp. 3698
Paecilomyces fumosoroseus 3699
3700

Mexico

Fusarium sp. 3672 3676 3677 3679
USA, California
Fusarium sp. 3668 3669 3670 3671
3673 3674 3675 3678
Paecilomyces farinosus 3658 3659
3660 3661 3662 3663

USA, Florida

Aphanocladium album 3680
Paecilomyces fumosoroseus 3076
3083 3322

USA, Texas

Paecilomyces farinosus 3572 3573
3574 3575 3576 3577 3578 3579
3580 3581 3582 3583 3584 3585
3586 3587 3588 3589 3590 3591
3592 3593 3594

Dialeurodes citri

USA, Florida
Aschersonia aleyrodii 341 342
Aschersonia goldiana 343

Dialeurodes citri

Indonesia, Yogyakarta, Java
Aschersonia insperata 2351 2397
2398

Japan

Aschersonia aleyrodii 992

Mexico

Unidentified 3304

Philippines

Aschersonia insperata 2356 2357
2358 2396

Trialeurodes vaporariorum

Netherlands
Aschersonia aleyrodii 2268

Poland

Verticillium lecanii 972

Sweden

Verticillium fusisporum 923

USA, Florida

Paecilomyces farinosus 2658

Homoptera: Aphididae

Unknown genus

Australia
Pandora neoaphidis 381
Commonwealth of Independent States
Conidiobolus thromboides 58 59 248
249 250

France

Beauveria bassiana 3120 3121
Conidiobolus obscurus 434
Unidentified 3122 3125

India

Verticillium lecanii 2659

Israel

Pandora neoaphidis 78
Zoophthora radicans 195

Japan

Conidiobolus thromboides 1006
Entomophthora sp. 999

Pakistan

Fusarium sp. 3704 3707 3703 3705
3712

USA, Florida

Paecilomyces fumosoroseus 3682

USA, Maine

Pandora nouri 199

Venezuela

Verticillium lecanii 974

Yugoslavia

Conidiobolus sp. 1426
Pandora neoaphidis 1695
Unidentified 1693 1694

Yugoslavia, Belgrade

Batkoa major 1427

Erynia sp. 2279

Pandora neoaphidis 1696 2016 2298

Acyrtosiphon kondoi

Australia

Conidiobolus obscurus 354 824 839
Entomophthora chromaphidis 1860
1862 1863

- Pandora kondoiensis* 369 825 837
Pandora neoaphidis 836
Pandora nouryi 362
Acyrtosiphon pisum
 Australia
Conidiobolus obscurus 834
Pandora kondoiensis 828
Pandora neoaphidis 827 830 831 838
 Commonwealth of Independent States
Conidiobolus thromboides 100
 Denmark
Conidiobolus obscurus 2504
 England
Conidiobolus coronatus 1738
 France
Pandora neoaphidis 1598 1605 1609
 Lab. manipulation
Conidiobolus obscurus 832 1741
 Spain
Pandora neoaphidis 1603
 USA, Idaho
Pandora neoaphidis 3240
 USA, New York
Conidiobolus obscurus 3130 3131 3132 3133 3134 3135 3137 3138 3139 3140 3141
Conidiobolus thromboides 3136
Pandora neoaphidis 2583 2584 2585 2587 2588 2589 2591 2592 2593 2594 2754 2755 2756 2757 2758 2760 2761 2762 2763 2766 2767 2768 2769 2773 2781 2782 2783 2784 2837 2838 2839 2840 2842 2844 2845 2846 2847 2848 2851 2852 2853 2854 2855 2856 2865 2866 2867 2868 2870 2872 2873
Zoophthora occidentalis 2841 3027 3028 3029 3071 3073
 USA, Washington
Pandora neoaphidis 3234 3237
 Yugoslavia, Vojvodina
Pandora neoaphidis 2017 2018
Anoecia corni
 Switzerland
Zoophthora aphidis 425
Aphidula sp.
 France
Pandora neoaphidis 1615 1610
Aphis sp.
 Canada, Québec
Conidiobolus obscurus 124
Pandora neoaphidis 128
 USA, Washington
Pandora neoaphidis 3410
Aphis armata
 France
Conidiobolus obscurus 355 133
Aphis fabae
 England
Conidiobolus thromboides 42 1735
 France
Pandora neoaphidis 1606 1611 1981 1985
 Poland
Conidiobolus thromboides 242 244 245 246 247 630 631 632 633 634 635
Pandora neoaphidis 608 609 610 611 612 613 614 636 637 638 639
 USA, Washington
Conidiobolus sp. 3383
Pandora neoaphidis 3238 3241
 Yugoslavia, Vojvodina
Pandora neoaphidis 2019 2020
 Unidentified 2022
Aphis gossypii
 Israel
Conidiobolus thromboides 194 83
Brachycaudus amygdalinus
 Israel
Zoophthora radicans 75
Brevicoryne brassicae
 France
Pandora neoaphidis 1613 1616 1617
 Japan
Conidiobolus obscurus 1146
 Yugoslavia
Pandora neoaphidis 1784 1785 1786 1824 1825 1826 1827 2124 2128
Verticillium lecanii 1787
 Yugoslavia, Belgrade
Conidiobolus sp. 2130 2294
Pandora neoaphidis 2108 2109 2110 2111 2112 2114 2115 2116 2117 2118 2119 2120 2121 2122 2280 2293
Zoophthora phalloides 2281
 Yugoslavia, Bosnia and Hercegovina
Pandora neoaphidis 2123
Capitophorus sp.
 France
Zoophthora radicans 822
Cavariella theobaldi
 England
Conidiobolus thromboides 101 102 363 1733 1734
Dactynotus formosanus
 Japan
Pandora neoaphidis 1137
Diuraphis noxia
 Canada, Alberta
Verticillium lecanii 3000
 France
Pandora neoaphidis 3126 3174 3175
 Turkey
Beauveria bassiana 3153 3154 3155 3156 3157 3158 3166 3167 3168 3169
 USA, Colorado
Pandora neoaphidis 3081 3082
 USA, Idaho
Beauveria bassiana 2861 2864 2879 2882
Verticillium lecanii 2862 2877 2878
Diuraphis tritici
 USA, Montana
Conidiobolus thromboides 2914
Drepanosiphum aceris
 Switzerland
Zoophthora radicans 1130 914
Hyalopterus pruni
 Unknown country
Pandora neoaphidis 1596
Hyperomyzus lactucae
 Australia
Pandora neoaphidis 829 835
 Chile
Pandora neoaphidis 833
Macrosiphum sp.
 France
Pandora neoaphidis 1607 1612
Macrosiphum akebiae
 Japan
Pandora neoaphidis 1134
Macrosiphum euphorbiae
 USA, Idaho
Verticillium lecanii 2858
 USA, Maine
Conidiobolus obscurus 174 175 182
Conidiobolus thromboides 40
Pandora neoaphidis 181
Verticillium lecanii 204
Zoophthora occidentalis 207
 Yugoslavia, Belgrade
Erynia sp. 2292
Macrosiphum rosae
 France
Pandora neoaphidis 1987 1986
Metopolophium dirhodum
 France
Conidiobolus obscurus 97
 USA, Idaho
Conidiobolus coronatus 2812 2813 2814
Conidiobolus thromboides 2828 2829 2849 2850
Pandora neoaphidis 2874 2875 2876 3365 3367
 Unidentified 3368
Zoophthora radicans 2811
 USA, Montana
Conidiobolus obscurus 3092
Myzus sp.
 Spain
Pandora neoaphidis 1602 1601
Myzus ascalonicus
 France
Conidiobolus obscurus 67
Myzus nicotinae
 USA, Kentucky
Pandora neoaphidis 3411 3412 3459
 Unidentified 3239
Myzus persicae
 Unknown country
Paecilomyces fumosoroseus 3458
 Commonwealth of Independent States
Conidiobolus thromboides 63 99
 India
Verticillium lecanii 1026
 Portugal
Pandora neoaphidis 1600
 Spain
Pandora neoaphidis 2085 2086

USA, Arkansas
Pandora neoaphidis 3248 3249 3250 3251
USA, California
Verticillium lecanii 3324
USA, Florida
Conidiobolus thromboides 39
USA, Maine
Conidiobolus obscurus 129
Conidiobolus thromboides 2 41 57
USA, Washington
Beauveria bassiana 3385 3387
Conidiobolus sp. 3384
USA, Wisconsin
Conidiobolus thromboides 649
Myzus rannaculinum
France
Zoophthora phalloides 352
Myzus nr. persicae
France
Verticillium sp. 2323 2324 2325 2326
Pemphigus betae
USA, Arizona
Cladosporium cladosporioides 3463
Verticillium lecanii 3464
Rhopalosiphum insertum
France
Conidiobolus thromboides 73
Rhopalosiphum maidis
USA, Montana
Conidiobolus obscurus 3088 3089 3090 3091
Rhopalosiphum nymphaeae
USA, Florida
Verticillium lecanii 321
Rhopalosiphum padi
Canada, Québec
Conidiobolus obscurus 125
Japan
Conidiobolus obscurus 1131
South Africa
Unidentified 3374
USA, Colorado
Conidiobolus obscurus 3080
USA, Idaho
Fusarium sp. 2337
Schizaphis graminum
Canada, Alberta
Conidiobolus thromboides 2955
USA, Idaho
Beauveria bassiana 2336 2860 2880 2881 2883
Pandora neoaphidis 3366
USA, Michigan
Conidiobolus sp. 1967
Sitobion sp.
France
Pandora neoaphidis 1604
Unknown country
Pandora neoaphidis 1597
Sitobion avenae
USA, Idaho
Conidiobolus thromboides 2830
Fusarium sp. 2333 2863
Verticillium lecanii 2334 2859

Verticillium sp. 2332
Therioaphis maculata
Australia
Zoophthora radicans 359 370 823
Israel
Conidiobolus obscurus 74
Zoophthora radicans 103 104 105 106 107 108 109 110 111 112 114 139
Mexico
Zoophthora phalloides 351
Zoophthora radicans 379
USA
Pandora nouri 366
USA, California
Conidiobolus thromboides 15 29 115 208
USA, Illinois
Erynia sp. 1666
USA, New York
Zoophthora radicans 237 238 239
Toxoptera citricida
Argentina
Verticillium lecanii 2460 2009
Uroleucon sp.
Canada, Québec
Conidiobolus obscurus 121 122
Conidiobolus thromboides 120
Uroleucon formosanus
Japan
Pandora neoaphidis 993

Homoptera: Cercopidae

Unknown genus
Brazil
Metarhizium anisopliae 1899 1902 1911
Metarhizium anisopliae var. *anisopliae* 3147
Brazil, Bahia
Metarhizium anisopliae 1045 1282 1299 1379 1382
Brazil, Pará
Metarhizium anisopliae 1890 1891 1895
Ghana
Pseudogibellula formicarum 2913
Mexico
Metarhizium anisopliae 1912
Metarhizium anisopliae var. *anisopliae* 3307
Switzerland
Conidiobolus sp. 391
USA, New York
Zoophthora radicans 800
Aenolamia postica
Costa Rica
Fusarium sp. 3345
Aenolamia varia
Colombia
Metarhizium anisopliae 798
Trinidad and Tobago
Metarhizium anisopliae 3621
Deois sp.
Brazil, Paraná
Metarhizium anisopliae 2521

Brazil, Mato Grosso
Conidiobolus sp. 2147
Deois flavopicta
Brazil
Metarhizium anisopliae 2517
Brazil, Bahia
Metarhizium anisopliae 1900
Brazil, Espírito Santo
Metarhizium anisopliae 1044
Metarhizium anisopliae var. *anisopliae* 925
Brazil, Federal District
Beauveria bassiana 3019
Paecilomyces lilacinus 3481
Brazil, Goiás
Beauveria bassiana 806
Metarhizium anisopliae 729 759 782 955
Metarhizium anisopliae var. *anisopliae* 1970
Paecilomyces amoenoroseus 2078
Brazil, Mato Grosso
Conidiobolus sp. 2148
Deois incompleta
Brazil, Pará
Metarhizium anisopliae var. *anisopliae* 1449
Mahanarva posticata
Brazil, Bahia
Metarhizium anisopliae 1896 1898
Metarhizium anisopliae var. *anisopliae* 1894
Brazil, Pernambuco
Metarhizium anisopliae 2627
Prosapia simulans
Costa Rica
Unidentified 3536
Zulia entrerriana
Brazil, Mato Grosso
Beauveria bassiana 477
Zulia vilior costarricensis
Costa Rica
Unidentified 3535

Homoptera: Cicadellidae

Unknown genus
Brazil, Goiás
Entomophaga australiensis 743
Pandora delphacis 1238 1936
Zoophthora radicans 1495 1587 1591 2196
Brazil, Mato Grosso
Beauveria bassiana 945
Brazil, Paraná
Zoophthora radicans 1239
Brazil, São Paulo
Metarhizium flavoviride var. *minus* 2948
India
Sterile mycelium 3702
Japan
Zoophthora radicans 1263
Philippines
Conidiobolus coronatus 419 421 422
Hirsutella guyana 2352 2387
Metarhizium anisopliae 2353

Fungus by Host and Location

Metarhizium album 2081
Metarhizium flavoviride var. *minus* 2339
 USA, Illinois
Zoophthora radicans 2549 2551 2552
Cicadella sp.
 Australia
Entomophaga australiensis 328
Cofana spectra
 Indonesia, Sulawesi Utara, Celebes
Metarhizium album 2082
Empoasca sp.
 Israel
Zoophthora radicans 3623
 Yugoslavia
Zoophthora radicans 2282 2283 2284 2285 2288 2289
 Yugoslavia, Belgrade
Zoophthora radicans 2240 2241 2242 2243 2244 2245 2246 2286 2287
Empoasca fabae
 Unknown country
Zoophthora radicans 2400
 USA, Illinois
Zoophthora radicans 1938 2550 2716 2717 2718 2719 2720 3283 3284
 USA, Michigan
Zoophthora radicans 2977 2978 2979 2980
 USA, New York
Batkoa major 2936 3102 3103
Conidiobolus coronatus 3109
Conidiobolus obscurus 3099
Conidiobolus thromboides 3129
Pandora delphacis 3072 3093 3094 3095 3096 3106 3107
 Unidentified 3128
Zoophthora radicans 3100 3104 3105 3376 3377 3390
 USA, Wisconsin
Zoophthora radicans 1018 1019 1020 1021 1261 1262
Empoasca kraemeri
 Brazil
Paecilomyces viridis 807
Zoophthora radicans 3026
 Brazil, Ceará
Hirsutella guyana 2993
Hirsutella sp. 2644 2645 2646 2647 2648 2649 2650 2651 2652 2653 2654 2655 2656 2657 2992
 Brazil, Goiás
Entomophaga sp. 1230 1625
Zoophthora radicans 789 790 1492 1493 1494 1496 1497 1498 1499 1500 1501 1502 1503 1504 1541 1542 1543 1544 1581 1582 1583 1584 1585 1586 1588 1589 1590 1593 1594 1595 1928 1929 1930 1931 1932 1933 1934 1935 1937
 Brazil, Rio Grande do Norte
Entomophaga australiensis 791

Hirsutella guyana 878 879 881 882 883
 Brazil, Rio Grande do Sul
Zoophthora radicans 1227
 Brazil, Santa Catarina
Zoophthora radicans 1228 1229 1231 1232 1233 1234 1236 1237
 Brazil, São Paulo
Zoophthora radicans 2994 2995 2996 3002 3003 3004 3005 3006 3007 3008 3009 3010 3011 3012 3013
Empoasca vitis
 Unknown country
Zoophthora radicans 3162
 Yugoslavia
Zoophthora radicans 2703 2709 2712 3114 3116
 Yugoslavia, Belgrade
Zoophthora radicans 2696 2700 2701 2702 2706 2708 2713 3119 3149 3150 3159 3160 3164 3165
Hauptida distinguenda
 France
Zoophthora radicans 2256 2257 2258 2259 2260 2261 2262
Idioscopus clypealis
 Philippines
Hirsutella verticilloides 2599
Nephotettix bipunctata cincticeps
 Indonesia, Sulawesi Selatan, Celebes
Conidiobolus coronatus 597
Conidiobolus sp. 605 606
 Japan
Beauveria bassiana 1553 1554 1555 1556
 Malaysia
Conidiobolus coronatus 520
 Philippines
Entomophaga sp. 1126
 PR China
Beauveria bassiana 708
Beauveria brongniartii 656 678
Trichothecium sp. 653
Nephotettix cincticeps
 Japan
Beauveria bassiana 1098
 Philippines
Metarhizium anisopliae 2043
Pandora delphacis 458 459 460 461 478
Nephotettix virescens
 Indonesia, Jawa Barat, Java
Metarhizium anisopliae var. *anisopliae* 2106
 Indonesia, Sulawesi Selatan, Celebes
Metarhizium anisopliae 2153
 Philippines
Hirsutella strigosa 2197
Metarhizium album 1840 1941 1942 1943 2176 2178
Metarhizium flavoviride var. *minus* 1945
Recilia dorsalis
 Philippines
Metarhizium anisopliae 543

Homoptera: Cicadellidae Homoptera: Delphacidae

Metarhizium album 2177 2179
Metarhizium flavoviride var. *minus* 1546 1547
 PR China
Paecilomyces sp. 680
Pandora delphacis 659 660
Typhlocyba sp.
 Yugoslavia
Zoophthora radicans 3115
 Yugoslavia, Belgrade
Zoophthora radicans 3170 3171

Homoptera: Cicadidae
 Unknown genus
 Mexico
Beauveria bassiana 2544
Cicadetta puer
 Australia
Cordyceps heteropoda 1880
Entomophaga australiensis 331 365
Magiccica septendecim
 USA, New York
Massospora cicadina 374

Homoptera: Cixiidae
Myndus crudus
 USA, Florida
Hirsutella citrififormis 1446 1035

Homoptera: Coccidae
 Unknown genus
 Ecuador
Verticillium lecanii 2916
 Sri Lanka
Fusarium sp. 1828
Coccus viridis
 India
Fusarium sp. 2232
 Indonesia, Java
Verticillium lecanii 2149 2150
 Sri Lanka
Verticillium lecanii 1774
Pulvinaria elongata
 India
Fusarium subglutinans 2145
Pulvinaria floccifera
 Turkey
Verticillium lecanii 980
Saissetia oleae
 Israel
Verticillium lecanii 1029

Homoptera: Delphacidae
 Unknown genus
 Indonesia, Jawa Barat, Java
Hirsutella citrififormis 2428
Delphacodes striatella
 Japan
Zoophthora radicans 1050
Nilaparvata lugens
 Australia
Conidiobolus coronatus 349
 India
Conidiobolus nr. *coronatus* 1742 1743
Conidiobolus sp. 211
Fusarium moniliforme var. *intermedium* 3223

Metarhizium anisopliae 1724 1725
 1726 1727 1728 1729 1744 1745
 1823
Pandora delphacis 1730 1731
 Indonesia, Jawa Barat, Java
Beauveria bassiana 2427
Conidiobolus coronatus 1876
Conidiobolus nr. *coronatus* 598
Hirsutella citriformis 1917 1918
 1919 2099 2100 2101 2102 2103
 2420 2422 2423 2426
Metarhizium anisopliae 2421
Metarhizium anisopliae var. *anisopliae* 2080
Paecilomyces fumosoroseus 2429
Pandora delphacis 2091
Pandora nr. *delphacis* 2146
 Indonesia, Jawa Tengah, Java
Hirsutella citriformis 2346
 Indonesia, Lampung, Sumatra
Hirsutella citriformis 532
 Indonesia, Lombok Island
Pandora delphacis 575 579
 Indonesia, Sulawesi Selatan, Celebes
Conidiobolus coronatus 563 565
Conidiobolus sp. 564
Metarhizium anisopliae 576
 Indonesia, Sumatera Selatan, Sumatra
Hirsutella sp. 568
 Indonesia, Sumatera Utara, Sumatra
Entomophaga australiensis 581
Pandora delphacis 580
 Indonesia, Yogyakarta, Java
Conidiobolus nr. *coronatus* 599 600
Conidiobolus sp. 595 596
Hirsutella citriformis 591
 Japan
Conidiobolus coronatus 997
Pandora delphacis 134 1124 1132
 1133 1264 1268
Zoophthora radicans 1125 1136
 Korea
Fusarium semitectum 2053
Hirsutella repens 2348 2359 2394
Metarhizium anisopliae 2038 2039
Torribiella homopterorum 2045
 Malaysia
Conidiobolus coronatus 512 514 523
 524
Conidiobolus sp. 517 522
 Philippines
Conidiobolus coronatus 405 406 418
 511
Hirsutella citriformis 490 684 1036
 1062 1063 1064 1243 1244 1245
 1246 1247 1248 1249 1250 1251
 1252 1253 1254 1255 1256 1257
 1258 1259 1436 1549 1550
Hirsutella sp. 1096
Hirsutella strigosa 2044
Metarhizium anisopliae 455 456 457
 485 486 487 488 489 1284 1285
 1286 1290 1300 1304
Metarhizium flavoviride var. *minus*
 1099 1271 1272 1273 1274 1275
 1276 1277 1279 1283 1287 1288

1289 1291 1292 1293 1294 1295
 1296 1297 1301 1302 1303 1305
 2037
Paecilomyces fumosoroseus 2198
 PR China
Beauveria bassiana 654 679 709 714
 717 719
Conidiobolus coronatus 655
Conidiobolus lachnodes 700
Fusarium sp. 687
Pandora delphacis 657 665 666 667
 668 669 670 672 673 674 676 682
 686 698 713 716
Zoophthora radicans 685
 Solomon Islands
Calcarisporium ovalisporum 1907
Entomophaga sp. 1881
Hirsutella citriformis 1908 1913
Metarhizium flavoviride var. *minus*
 1763 1764 1765 1766 1767 1768
 1769 1770 1771 1772 1773
 Sri Lanka
Hirsutella citriformis 1837
 Thailand
Conidiobolus coronatus 525 528
Tilletiopsis sp. 527 572 573
Sogatella furcifera
 Indonesia, Jawa Barat, Java
Pandora delphacis 2092 2093 2095
 2096 2409
 Indonesia, Sulawesi Selatan, Celebes
Conidiobolus nr. *coronatus* 602
Conidiobolus sp. 604
Nomuraea rileyi 558
Pandora delphacis 593 603
Sogatodes pusanus
 Indonesia, Jawa Barat, Java
Pandora delphacis 2094

Homoptera: Diaspididae
Lepidosaphes sp.
 Indonesia, Jawa Barat, Java
Fusarium coccophilum 2098
Melanaspis glomerata
 India
Fusarium moniliforme 2074
Melanaspis obscura
 USA, District of Columbia
Fusarium coccophilum 821
Nuculaspis tsugae
 Japan
Hirsutella sp. 1668
Unaspis citri
 USA, Florida
Paecilomyces sp. nov. 3084

Homoptera: Lecaniidae
lecanium viridis
 Sri Lanka
Verticillium lecanii 555

Homoptera: Margarodidae
Icerya purchasi
 Sri Lanka
Verticillium lecanii 1033

Homoptera: Membracidae
 Unknown genus
 Brazil, Pará
Hirsutella versicolor 1034
 Brazil, Rondônia
Hirsutella versicolor 1037
 Mexico
Beauveria bassiana 3312
 Papua New Guinea
Beauveria sp. 2164
Spissistilus festinus
 USA, Alabama
Pandora delphacis 2028
 USA, Arkansas
Pandora delphacis 3484
 Umbonia sp.
 Ecuador
Sporodiniella umbellata 2895

Homoptera: Ortheziidae
Orthezia praelonga
 Brazil, Espírito Santo
Penicillium sp. 2643

Homoptera: Pseudococcidae
Phenacoccus solani
 USA, Florida
Paecilomyces fumosoroseus 2247
Rhizococcus sp.
 Unknown country
Beauveria bassiana 2236
Verticillium insectorum 2235
Verticillium psalliotiae 2234

Homoptera: Psyllidae
Heteropsylla cubana
 Papua New Guinea
Fusarium lateritium 2304
Fusarium sp. 2302 2303
 Philippines
Hirsutella citriformis 2347 2598
Heteropsylla incisa
 Papua New Guinea
Fusarium semitectum 2299 2300
Fusarium subglutinans 2301
 Philippines
Paecilomyces farinosus 2175
Psyllida citrioza
 Canada, Québec
Zoophthora radicans 126
Trioza urticae
 Switzerland
Zoophthora radicans 1719

Hymenoptera
 Unknown genus
 Brazil, Goiás
Conidiobolus sp. 2193
 Denmark
Ascosphaera major 694
 Switzerland
Batkoa apiculata 395

Hymenoptera: ?Megachilidae
 Unknown genus
 Brazil, Goiás
Beauveria bassiana 957

Hymenoptera: Apidae

- Apis mellifera*
USA, Oregon
Ascosphaera apis 691 692
USA, Texas
Ascosphaera apis 2683

Hymenoptera: Apoidea

- Unknown genus
Brazil, Santa Catarina
Beauveria bassiana 1468

Hymenoptera: Diprionidae

- Neodiprion pini*
Unknown country
Beauveria bassiana 338
Neodiprion tsugae
USA, Alaska
Zoophthora radicans 13

Hymenoptera: Encyrtidae

- Anagyrus* sp.
Mexico
Metarhizium anisopliae var. *anisopliae* 3146

Hymenoptera: Eurytomidae

- Bephratelloides cubensis*
USA, Florida
Beauveria bassiana 2869

Hymenoptera: Formicidae

- Unknown genus
Mexico
Beauveria bassiana 2487
Brazil, Bahia
Beauveria bassiana 1960
Anoplolepis longipes
Papua New Guinea
Aphanocladium album 2161
Aspergillus flavus 2157 2158 2159
Paecilomyces farinosus 2155
Paecilomyces viridis 2160
Verticillium indicum 2170
Atta sp.
Mexico
Beauveria bassiana 3285
Brazil
Beauveria bassiana 1831
Atta mexicana
Mexico
Beauveria bassiana 2484 2485 2486
Atta sexdens rubropilosa
Brazil, São Paulo
Metarhizium anisopliae 2560
Formica attae
Brazil, Goiás
Metarhizium anisopliae 2510
Paltothyreus tarsatus
Ghana
Akanthomyces gracilis 2910 2919
Sporothrix insectorum 2909 2918
Solenopsis sp.
Brazil
Beauveria bassiana 2722 2723
Brazil, São Paulo
Beauveria amorpha 2641
Metarhizium anisopliae 2561

Solenopsis invicta

- Brazil, Mato Grosso
Beauveria bassiana 2402 2403 2404
Beauveria brongniartii 2401
Unidentified 2640
USA, Texas
Conidiobolus sp. 2819

Hymenoptera: Formicidae: Myrmicinae

- Unknown genus
France
Beauveria bassiana 1976 1977 1978 1979

Hymenoptera: Ichneumonidae

- Unknown genus
Poland
Beauveria bassiana 156
Fusarium lateritium 1331 1416
Verticillium lecanii 1330
Cratichneumon lanus
Poland
Unidentified 1421

Hymenoptera: Megachilidae

- Megachile centuncularis*
Denmark
Ascosphaera prolipeperda 695
Megachile rotundata
Lab. manipulation
Ascosphaera prolipeperda 696
USA, Nevada
Ascosphaera aggregata 689
USA, Oregon
Ascosphaera aggregata 690
Ascosphaera atra 693

Hymenoptera: Pamphiliidae

- Unknown genus
USA, Maine
Hirsutella gigantea 30
Pamphilius betulae
Commonwealth of Independent States
Beauveria bassiana 154 152

Hymenoptera: Sphecidae

- Unknown genus
Mexico
Beauveria bassiana 2545

Hymenoptera: Tenthredinidae

- Monophadnus elongatulus*
Italy
Paecilomyces fumosoroseus 1576
Pristiphora erichsonii
Canada, British Columbia
Paecilomyces farinosus 1851

Hymenoptera: Vespidae

- Unknown genus
Brazil, Alagoas
Beauveria bassiana 1953
Brazil, Amazonas
Beauveria bassiana 730
Brazil, Goiás
Beauveria bassiana 2943 2944

Vespula vulgaris

- Canada, Alberta
Beauveria sp. 2997

Isoptera

- Unknown genus
Brazil, Goiás
Metarhizium anisopliae 2951 2949

Isoptera: Oniscoidea

- Porcellio* sp.
USA, California
Conidiobolus sp. 1672
Myriodontium keratinophilum 368 386

Isoptera: Rhinotermitidae

- Coptotermes formosanus*
USA, Hawaii
Metarhizium anisopliae 3045
Reticulitermes flavipes
Canada, Ontario
Beauveria bassiana 3041

Lepidoptera

- Unknown genus
Brazil, Ceará
Beauveria bassiana 2637
Brazil, Goiás
Erynia sp. 1241
Nomuraea rileyi 936
Brazil, São Paulo
Beauveria bassiana 2633
Canada
Furia crustosa 2906
Hirsutella sp. 2581
Ecuador
Beauveria velata 2998
Indonesia, Jawa Barat, Java
Metarhizium anisopliae var. *anisopliae* 2424
Japan
Entomophaga aulicae 1140 1656
Furia neopyralidarum 1145
Lab. manipulation
Metarhizium anisopliae 1094
Mexico
Beauveria bassiana 2857
Verticillium sp. 2822
Solomon Islands
Nomuraea rileyi 1879 1893
Switzerland
Furia virescens 427
Zoophthora radicans 404
USA, New York
Paecilomyces farinosus 3152
Galactica sp.
Brazil, Federal District
Metarhizium anisopliae 552

Lepidoptera: Arctiidae

- Hyphantria cunea*
Italy
Beauveria bassiana 1564 1565
Paecilomyces fumosoroseus 1568 1569 1577 1578 1579

Pyrrharctia isabella
 USA, New York
Paecilomyces farinosus 3017
Spilosoma niveum
 Japan
Entomophaga aulicae 2372 2373
 2374

Lepidoptera: Bombycidae

Bombyx mori
 Japan
Aspergillus flavus 1003 1010
Beauveria bassiana 302 303 304 305
 1007
Beauveria sp. 1040
Metarhizium anisopliae var. *majus*
 988 1015
Paecilomyces fumosoroseus 989
 1005
Paecilomyces lilacinus 986
Verticillium lecanii 991
 Philippines
Beauveria bassiana 2737
 PR China
Beauveria bassiana 718
Metarhizium anisopliae 703
Nomuraea rileyi 711
Paecilomyces javanicus 720

Lepidoptera: Brassolidae

Brassolis sp.
 Colombia
Beauveria bassiana 2297
Brassolis saphorae
 Brazil, Pará
Beauveria bassiana 2619
Paecilomyces sp. 2613
 Brazil, Sergipe
Paecilomyces sp. 2620

Lepidoptera: Castniidae

Castnia licus
 Brazil, Pernambuco
Beauveria brongniartii 1829

Lepidoptera: Cossidae

Cossula cossus
 Italy
Beauveria bassiana 1103 1104 1558
Verticillium lecanii 973 1102
Prionoxystus robiniae
 USA, Kentucky
Paecilomyces farinosus 2269
Zeuzera pyrina
 Italy
Beauveria bassiana 1105

Lepidoptera: Crambidae

Unknown genus
 New Zealand
Metarhizium anisopliae 3064

Lepidoptera: Geometridae

Unknown genus
 Japan
Cordyceps militaris 2416
Enypia griseata
 Canada, British Columbia
Entomophaga aulicae 2000

Hibernia defoliaria
 Poland
 Unidentified 1415 1417
Lambdina athasaria
 USA, Vermont
Paecilomyces farinosus 3537 3538
 Unidentified 3567 3568 3569

Lambdina fiscellaria fiscellaria
 Canada, Newfoundland
Entomophaga aulicae 1991 2900
Zoophthora radicans 72
Lambdina fiscellaria lugubrosa
 Canada, British Columbia
Entomophaga aulicae 1990
Rheumaptera hastata
 Canada, Ontario
Entomophaga aulicae 2899

Lepidoptera: Hepialidae

Orycanus sp.
 New Zealand
Metarhizium anisopliae 1187

Lepidoptera: Hyblaeidae

Hyblaea puer
 India
Beauveria bassiana 2597
Fusarium sp. 2595

Lepidoptera: Lasiocampidae

Dendrolimus spectabilis
 Japan
Basidiobolus ranarum 1139
Beauveria bassiana 1677
Entomophaga aulicae 1655
Gastropacha orientalis
 Japan
Paecilomyces canadensis 990
Malacosoma americanum
 USA, Massachusetts
Beauveria bassiana 1
Paecilomyces farinosus 3
Malacosoma distria
 USA, New York
Entomophaga aulicae 3602

Lepidoptera: Limacodidae

Natada michonta
 Brazil, Pará
Paecilomyces sp. 2616 2617 2618

Lepidoptera: Lymantriidae

Leucoma salicis
 Unknown country
Paecilomyces farinosus 38
Lymantria sp.
 Philippines
Nomuraea rileyi 481 482 483
Lymantria dispar
 Canada, Ontario
Beauveria bassiana 2267
 Commonwealth of Independent States
Beauveria bassiana 155
 France
Scopulariopsis sp. 2255
 Japan
Entomophaga maimaiga 1390 1391
 1392 1400 1658 2370 2371

Rumania

Beauveria bassiana 299
 USA, Connecticut
Entomophaga maimaiga 2775
 USA, Delaware
Beauveria bassiana 2570 2571 2572
 2573
 USA, Maryland
Aspergillus flavus 2833
Beauveria bassiana 2831 3404 3529
 3530
Fusarium polyphialidicum 3696
Fusarium sp. 3532
Paecilomyces farinosus 2131 2835
 3492 3498 3507 3524 3526 3666
Penicillium sp. 2834 2836
 USA, Massachusetts
Entomophaga maimaiga 2779
Fusarium polyphialidicum 3694
 USA, New Hampshire
Entomophaga maimaiga 2780
 USA, New York
Entomophaga maimaiga 3052 3053
Fusarium polyphialidicum 3692
 3693
Paecilomyces farinosus 648 697
 2564 3595 3596 3597 3598 3599
Verticillium lecanii 3600 3601
 USA, Oregon
Acremonium berkeleyanum 2067
Acrodontium crateriforme 2070
Beauveria bassiana 2054
Filobasidiella arachnophila 2058
Fusarium avenaceum 2060
Fusarium merismoides 2059
Humicola sp. 2069
Mortierella clausenii 2062
Mortierella hyalina 2061
Mortierella sp. 2063
Paecilomyces farinosus 2057
Penicillium thomii 2056
Phialophora malorum 2072
Phoma cava 2071
 Sterile mycelium 2073
Trichothecium roseum 2055
Verticillium coccosporum 2064
Verticillium fungicola 2065
Verticillium lecanii 2066
 USA, Pennsylvania
Beauveria bassiana 3528
Paecilomyces farinosus 20 3221
 3491 3499 3500 3506 3523
 USA, Virginia
Beauveria bassiana 3405 3527
Fusarium polyphialidicum 3695
Fusarium sambucinum 3483
Paecilomyces farinosus 3490 3493
 3494 3496 3497 3501 3502 3503
 3504 3505 3508 3664 3665
 USA, West Virginia
Paecilomyces farinosus 3495 3517
 3518 3519 3520 3521 3522 3525
 3533
Verticillium sp. 3531

Lepidoptera: Lyonetiidae

Leucoptera scitella

Italy

Beauveria bassiana 1115 1117*Metarhizium anisopliae* 1116

Lepidoptera: Microlepidoptea

Unknown genus

Poland

Hirsutella subulata 2227

Lepidoptera: Noctuidae

Unknown genus

Canada

Metarhizium anisopliae var. *anisopliae* 2140

Denmark

Tolypocladium cylindrosporum
2777 2778

Hungary

Beauveria bassiana 1627 1628 1629

Switzerland

Furia virescens 470 1129

USA, Mississippi

Nomuraea rileyi 135

USA, New York

Entomophaga aulicae 3016? *Heliothis* sp.

USA, Georgia

Entomophaga aulicae 251*Aedia leucomelas*

Japan

Entomophaga aulicae 998 198*Anticarsia gemmatalis*

Argentina

Nomuraea rileyi 2013 2465 2466

Brazil, Pará

Nomuraea rileyi 1950

Brazil, Rio Grande do Sul

Nomuraea rileyi 2201 2202 2203
2204 2205 2207

Mexico

Metarhizium anisopliae var. *anisopliae* 3295*Nomuraea rileyi* 2492*Autographa gamma*

France

Beauveria bassiana 2253 2254

Japan

Entomophaga aulicae 2363 2365*Heliothis armigera*

India

Nomuraea sp. 2413

Spain

Beauveria bassiana 1149 1166*Heliothis virescens*

France

Beauveria bassiana 1314 1315 1316

Spain

Beauveria bassiana 1788*Heliothis zea*

USA, Florida

Metarhizium anisopliae 1080*Mamestra brassicae*

Japan

Entomophaga aulicae 1657 1751
2362 2367 2368 2369*Pandora delphacis* 1265*Mocis* sp.

Colombia

Beauveria sp. 590*Metarhizium anisopliae* 587*Mocis frugalis*

Philippines

Nomuraea rileyi 1762*Mocis latipes*

Brazil, Goiás

Conidiobolus nr. *coronatus* 1884*Naranga* sp.

Indonesia, Jawa Tengah, Java

Nomuraea rileyi 2345*Plathypena scabra*

USA, Missouri

Nomuraea rileyi 762*Plusia* sp.

Japan

Nomuraea rileyi 1047*Prodenia litura*

Japan

Nomuraea rileyi 1014*Pseudaletia* sp.

Canada, Ontario

Entomophaga aulicae 1999*Pseudoplusia includens*

USA, Alabama

Erynia sp. 2027*Pseudoplusia ni*

Brazil

Acremonium roseum 1964*Rachiplusia ou*

Brazil, Rio Grande do Sul

Nomuraea rileyi 2206*Raghuva albipunctella*

Senegal

Fusarium nygamai 2316*Rivula atimeta*

Philippines

Nomuraea rileyi 1756 1757 1758

1759 1760 2395

Paecilomyces farinosus 2344*Sesamia cretica*

Italy

Beauveria bassiana 1118*Sesamia inferens*

Indonesia, Jawa Barat, Java

Zoophthora radicans 2411

Japan

Paecilomyces sp. 1008*Spodoptera* sp.

Unknown country

Paecilomyces sp. 2546

Australia

Nomuraea rileyi 323 358 380

Brazil, Goiás

Nomuraea rileyi 935

Philippines

Fusarium sp. 2736*Metarhizium anisopliae* 2735*Paecilomyces farinosus* 2734*Spodoptera exigua*

Thailand

Nomuraea rileyi 539*Spodoptera frugiperda*

Brazil, Bahia

Nomuraea rileyi 1972

Brazil, Paraná

Beauveria bassiana 959

Mexico

Beauveria bassiana 3288*Beauveria* sp. 3289 3300*Metarhizium anisopliae* var. *anisopliae* 3293 3294*Nomuraea rileyi* 3301*Paecilomyces tenuipes* 2488 2489
2490 2491*Spodoptera littoralis*

France

Beauveria bassiana 1512 1513 3286

Lepidoptera: Notodontidae

Ellida caniplaga

Canada, Ontario

Entomophaga aulicae 2903*Heterocampa* sp.

Canada, Ontario

Entomophaga aulicae 2902*Heterocampa biundata*

Canada, Ontario

Entomophaga aulicae 2905*Heterocampa guttivitta*

Canada, Ontario

Entomophaga aulicae 2904

USA, New York

Entomophaga aulicae 3039 3212

USA, Vermont

Entomophaga aulicae 2843*Quadicalcarifera punctatella*

Japan

Paecilomyces farinosus 1042

Lepidoptera: Nymphalidae

Unknown genus

England

Paecilomyces farinosus 981*Chlosyne lacinia saundersii*

Brazil, Paraná

Metarhizium anisopliae 1057 1059*Paecilomyces farinosus* 1058 1065

Lepidoptera: Oecophoridae

Anteotricha sp.

Brazil, Pará

Paecilomyces sp. 2615 2614

Lepidoptera: Olethreutidae

Carpocapsa pomonella

Austria

Metarhizium anisopliae 1095

Yugoslavia, Serbia

Beauveria bassiana 503

Lepidoptera: Phycitinae

Emmalocera depressella

India

Fusarium sp. 2418*Beauveria bassiana* 2417

Lepidoptera: Pieridae

- Colias erate poligraphus*
Japan
Entomophaga aulicae 2366
Pieris brassicae
Poland
Zoophthora radicans 1341 1342
1343 1344 1345 1346
Pieris rapae
USA, New York
Furia pieris 781

Lepidoptera: Plutellidae

- Plutella* sp.
Australia
Pandora blunckii 3075
Plutella xylostella
Germany
Pandora blunckii 217
Japan
Erynia sp. 983
Pandora blunckii 1000
Zoophthora radicans 1048
Malaysia
Zoophthora radicans 1100
Philippines
Aspergillus flavus 2818
Aspergillus sp. 2765 2817 2820
Beauveria bassiana 2727 2728 2729
Beniowskia sp. 2751
Conidiobolus coronatus 2730
Conidiobolus firmipilleus 2731
Conidiobolus sp. 2771 2772 2815
2816 3208 2776
Paecilomyces fumosoroseus 2749
Pandora blunckii 2824 3200 3201
3202
Scopulariopsis sp. 3203 2752 2821
Zoophthora radicans 2732 2893
3204 3205 3206

Lepidoptera: Pyralidae

- Chilo infuscatellus*
India
Beauveria bassiana 1886
Chilo plejadellus
Australia
Beauveria bassiana 326
Chilo sacchariphagus indicus
India
Fusarium subglutinans 2142
Cnaphalocrocis medinalis
Indonesia, Jawa Barat, Java
Zoophthora radicans 2410
Philippines
Beauveria bassiana 2041
Nomuraea rileyi 1761 2174
Unidentified 1703
Zoophthora radicans 1699
Corcyra cephalonica
Philippines
Mixed culture 2738
Diaphania hyalinata
Mexico
Paecilomyces fumosoroseus 3302

Diatraea saccharalis

- Brazil
Beauveria bassiana 1832 1834
Brazil, Pernambuco
Beauveria bassiana 1484 2629 3020
Brazil, São Paulo
Beauveria brongniartii 1830
Mexico
Metarhizium anisopliae var. *anisopliae* 3290 3291 3292
Unidentified 3298 3299
Dioryctria sylvestrella
Japan
Beauveria bassiana 1001
Hirsutella satumaensis 996
Galleria mellonella
Italy
Beauveria bassiana 1114 1113
Ostrinia nubilalis
France
Metarhizium anisopliae 1489
Italy
Beauveria bassiana 1121
PR China
Beauveria bassiana 501 502 533 652
USA, New York
Beauveria bassiana 1038
Verticillium lecanii 900
USA, Pennsylvania
Beauveria bassiana 2976
Pyrausta machaeralis
India
Metarhizium sp. 2596
Scirpophaga excerptalis
India
Fusarium subglutinans 2141
Terastia meticulosalis
Brazil
Beauveria bassiana 1836

Lepidoptera: Riordinidae

- Euselasia* sp.
Brazil, Rio Grande do Sul
Unidentified 3467 3468

Lepidoptera: Saturniidae

- Unknown genus
Costa Rica
Beauveria bassiana 843
Dryocampa rubicunda
Canada, Ontario
Entomophaga aulicae 2897
Schirius sp.
Brazil, Paraná
Beauveria bassiana 2962

Lepidoptera: Sesiidae

- Conopia myopaeformis*
Italy
Paecilomyces farinosus 1108

Lepidoptera: Stenomatinae

- Stenoma decora*
Brazil, Bahia
Beauveria bassiana 1479

Lepidoptera: Tortricidae

- Adoxophyes orana*
Japan
Verticillium lecanii 994
Choristoneura sp.
Canada, British Columbia
Beauveria bassiana 1850
Choristoneura fumiferana
Canada, New Brunswick
Tolypocladium niveum 3321
Canada, Newfoundland
Entomophaga aulicae 2896 2898
Canada, Ontario
Entomophaga aulicae 1992 1993
1994 1995 1997 1998 2901
Zoophthora radicans 407
USA, Maine
Conidiobolus sp. 92 93 94 147 148
Entomophaga aulicae 51 164 165
166 167 168 172
Hirsutella gigantea 177 178
Zoophthora radicans 21 44 45 50 52
88 141 142 143 144 145 146 163
221 222 223 224 225 226 227 228
229 230 231 232 233 234 235
Cydia pomonella
Australia
Verticillium lecanii 1032
England
Paecilomyces farinosus 975
France
Beauveria bassiana 151
Italy
Beauveria bassiana 1122
Verticillium lecanii 1109
Portugal
Beauveria bassiana 3220
Eana argentana
Japan
Erynia sp. 1143
Epiphyas postvittana
New Zealand
Paecilomyces sp. 309
Laspeyresia medicaginis
France
Paecilomyces farinosus 1225
Lobesia botrana
Italy
Beauveria bassiana 1107 1110
Metarhizium anisopliae 1112
Paecilomyces farinosus 1111
Merophyas divulsana
Australia
Zoophthora radicans 1082
Ptycholoma aeriferana
Japan
Zoophthora radicans 1674 1675
Tortrix viridiana
France
Zoophthora radicans 68

Neuroptera: Chrysopidae

- Chrysopa* sp.
Commonwealth of Independent States
Beauveria bassiana 153

Orthoptera

Unknown genus

Brazil, Goiás

Metarhizium anisopliae 728

Mali

Aspergillus niger 3143

USA

Beauveria bassiana 3622

Orthoptera: Acrididae

Unknown genus

Australia

Beauveria bassiana 356 357

Brazil, Bahia

Beauveria bassiana 1959

Brazil, Paraná

Beauveria bassiana 1053

Ecuador

Metarhizium flavoviride 2023

France

Beauveria bassiana 1326

Japan

Entomophaga asiatica 1393

Mali

Fusarium acuminatum 3218

USA, Montana

Beauveria brongniartii 32*Conidiobolus thromboides* 22?*Melanoplus* sp.

USA, Montana

Sorospora sp. 377*Austracris guttulosa*

Australia

Metarhizium anisopliae 324*Camnula pellucida*

USA, Arizona

Entomophaga macleodii 496 618

619 620 621 624 628 629 765 767

768 769 773 774 777 778 779

USA, North Dakota

Entomophaga macleodii 3025*Dissosteira carolina*

Canada, Ontario

Entomophaga macleodii 375 376

USA, New York

Entomophaga macleodii 382 499*Melanoplus* sp.

USA

Beauveria bassiana 3620

Spain

Aspergillus sp. 1152*Melanoplus bivittatus*

USA, Arizona

Entomophaga calopteni 497 766

USA, Montana

Entomophaga calopteni 408

USA, South Dakota

Entomophaga calopteni 498

USA, Wyoming

Entomophaga calopteni 390*Melanoplus cuneatus*

USA, Arizona

Entomophaga calopteni 623 626
646*Melanoplus differentialis*

USA, Kansas

Entomophaga calopteni 2522*Melanoplus flavidus*

USA, Wyoming

Entomophaga calopteni 383*Melanoplus packardii*

USA, Arizona

Entomophaga calopteni 625*Ornithacris cavorisi*

Niger

Metarhizium flavoviride var. *minus*

3341

Parapodisma sp.

Japan

Entomophaga asiatica 1659*Praxibulus* sp.

Australia

Entomophaga praxibuli 840*Schistocerca gregaria*

Lab. manipulation

Metarhizium anisopliae var. *anisopliae* 3127

Orthoptera: Acrididae: Oedipodinae

Aiolopus thalassinus tamulus

Indonesia, Jawa Barat, Java

Entomophaga sp. 2083

Orthoptera: Gryllidae

Unknown genus

Indonesia, Sulawesi Selatan, Celebes

Paecilomyces guaensis 2152

Oman

Metarhizium anisopliae 3611*Ornebius kanetataki*

Japan

Metarhizium anisopliae 1009*Teleogryllus commodus*

Australia

Metarhizium anisopliae 435 436 437

438 439 440 441 442 443 444 445

446

Orthoptera: Gryllotalpidae

Unknown genus

Commonwealth of Independent States

Metarhizium anisopliae 2786*Scapteriscus vicinus*

USA, Florida

Sorospora uvella 1856

Orthoptera: Pyrgomorphidae

Zonocerus elegans

Tanzania

Metarhizium flavoviride 3391*Zonocerus variegatus*

Benin

Metarhizium flavoviride 3606

Guinea-Bissau

Metarhizium sp. 3615

Mali

Metarhizium sp. 3618

Orthoptera: Tettigoniidae

Conocephalus sp.

Philippines

Paecilomyces reniformis 2340

Orthoptera: Tettigoniidae

Unknown genus

Brazil, Goiás

Conidiobolus sp. 1477*Metarhizium anisopliae* 727

Indonesia, Sumatera Utara

Paecilomyces reniformis 577

Philippines

Paecilomyces reniformis 429 484

Thysanoptera: Thripidae

Unknown genus

France

Verticillium lecanii 3701

Canada

Verticillium lecanii 2923*Frankliniella occidentalis*

France

Verticillium lecanii 3683 3684 3685

3686 3687 3688 3689 3690 3691

USA, Florida

Conidiobolus coronatus 3222

USA, Vermont

Unidentified 3570

Taeniothrips inconsequens

Unknown country

Unidentified 3319

USA, Connecticut

Verticillium lecanii 3264 3265 3266

3267 3268 3269 3270

USA, Massachusetts

Verticillium lecanii 3259 3260 3261

3262 3263

USA, New Hampshire

Verticillium lecanii 3258

USA, New York

Verticillium lecanii 3257

USA, Pennsylvania

Verticillium lecanii 3252 3253 3254

3255

USA, Vermont

Hirsutella sp. 1 2939 2940*Hirsutella* sp. 3546 3548 3553*Paecilomyces farinosus* 3564

Unidentified 3560

Verticillium ?lecanii 3315 3316

3317

Verticillium lecanii 2930 3318 3554

3555 3557 3558 3559 3562 3563

Verticillium sp. 3547 3549 3550

3551 3552 3556 3561

Thrips calcaratus

USA, Wisconsin

Beauveria bassiana 3216*Thrips palmi*

USA, Puerto Rico

Cladosporium cladosporioides 3375*Thrips tabaci*

Denmark

Sporothrix sp. 3142

Trichoptera

Unknown genus

Canada, Québec

Unidentified 3242 3243 3244

England

Erynia rhizospora 1440 1441 1443

Pandora dipterigena 2406
USA, Maine
Erynia rhizospora 219
USA, New York
Erynia rhizospora 801 2276
Wales
Erynia rhizospora 1442

Trichoptera: Hydropsychidae

Unknown genus
England
Erynia rhizospora 2407

Nemata • Secernemtia

Aphelenchida: Aphelenchoididae

Aphelenchoides sp.
USA, New York
Verticillium balanoides 3173
Unidentified 3735

Dorylaimida: Longidoridae

Xiphinema sp.
USA, Pennsylvania
Leptolegnia sp. 2004
Catenaria anguillulae 2015
Xiphinema americanum
USA, Pennsylvania
Aphanomyces sp. 2005
Xiphinema rivesi
USA, Pennsylvania
Lagenidium caudatum 2003

Rhabditida: Rhabditidae

Cruzema lambdiense
USA, Tennessee
Macrobiotophthora vermicola 650

Tylenchida: Criconematidae

Criconemella curvata
USA, Pennsylvania
Hirsutella rhossiliensis 2007
Criconemella xenoplax
USA, Pennsylvania
Hirsutella rhossiliensis 2006 2008

Tylenchida: Heteroderidae

Heterodera humuli
Germany
Hirsutella rhossiliensis 2894
Heterodera schachtii
USA, California
Arthrobotrys dactyloides 2934
Hirsutella rhossiliensis 2788 2789
2790 2791 2792 2794 2931 2932
2933
Meloidogyne sp.
India
Paecilomyces marquandii 2233
Peru
Paecilomyces lilacinus 2183
Philippines
Paecilomyces lilacinus 2181 2182
2184 2185 2186

Vertebrata • Reptilia

Crocodylia: Alligatoridae

Alligator mississippiensis
USA, Oklahoma
Beauveria bassiana 2455

Squamata: Colubridae

Elaphe sp.
Germany
Schizangiella sp. 2239 2237

Squamata: Viperidae

Crotalus horridus
USA, Maryland
Schizangiella serpentis 203

Fungi

Basidiomycotina • Hymenomycetes

Agaricales

Volvariella volvacea
USA, Puerto Rico
Conidiobolus coronatus 1147
Unknown genus
USA, New York
Conidiobolus coronatus 3087

Geographical Origin

?Indonesia

Unknown state

Basidiobolus haptospora 272
Basidiobolus sp. 271

Antarctica

Unknown state

Paecilomyces farinosus 2975

Argentina

Buenos Aires

Metarhizium anisopliae var. *anisopliae* 2974

Paecilomyces farinosus 2971 2973

Santiago del Estero

Nomuraea rileyi 2465

Tucumán

Beauveria bassiana 2010 2011 2457
2509 2515 2516

Hirsutella thompsonii 2012 2464

Nomuraea rileyi 2013 2466

Verticillium lecanii 2009 2460

Australia

Unknown state

Conidiobolus sp. 2924 2925 2926 2927

Culicinomyces clavisporus 2622

Metarhizium anisopliae 437 438

Pandora neoaphidis 381

Verticillium lecanii 1032

Aust. Capital Territory

Metarhizium anisopliae var. *majus* 473

Pandora neoaphidis 835

New South Wales

Beauveria bassiana 300 356 357

Conidiobolus coronatus 471

Conidiobolus obscurus 354 824 834
839

Culicinomyces clavisporus 644 645
2471 2472 2473 2474 2475 2476 2477
2478

Entomophaga prazibuli 840

Metarhizium anisopliae 472

Nomuraea anemonoides 2467

Pandora kondoiensis 828 837

Pandora neoaphidis 827 829 831 836
838

Zoophthora radicans 359 370 823

Queensland

Beauveria bassiana 325 326

Conidiobolus coronatus 349

Cordyceps heteropoda 1880

Crypticola clavulifera 1940

Culicinomyces bisporalis 1948 1949

Culicinomyces clavisporus 2480 2481

Entomophaga australiensis 328 331
365

Entomophthora chromaphidis 1860
1862 1863

Lagenidium giganteum 2529 2530
2531 2532 2533

Metarhizium anisopliae 324

Nomuraea rileyi 323 358 380

Pandora blunckii 3075

Pandora kondoiensis 369 825

Pandora nouryi 362

Zoophthora radicans 1082

South Australia

Metarhizium anisopliae 346

Victoria

Culicinomyces clavisporus 2479

Metarhizium anisopliae 435 436 439

440 441 442 443 444 445 446

Pandora neoaphidis 830

Austria

Unknown state

Metarhizium anisopliae 1095

Burgenland

Beauveria bassiana 1533 1534 1535

1536 1537 1538 1539 1540 1635 1636

1637 1638 1640 1643 1973 1974 1988

Fusarium sp. 1641

Trichothecium roseum 1639 1642

Tirol

Tolypocladium niveum 3277

Belgium

Unknown state

Beauveria bassiana 1848

Benin

Unknown state

Metarhizium flavoviride 3606

Metarhizium sp. 3612 3613 3614

Brazil

Unknown state

Acremonium roseum 1964

Beauveria bassiana 1831 1832 1833

1834 1836 2722 2723 3219

Beauveria sp. 1835

Metarhizium anisopliae 549 550 551

1899 1902 1911 2517

Metarhizium anisopliae var. *anisopliae* 3147

Paecilomyces viridis 807

Zoophthora radicans 3026

Alagoas

Beauveria bassiana 1953 1954 1955
1956

Paecilomyces farinosus 1957

Amazonas

Beauveria bassiana 730 731 732 756
2512 2957

Metarhizium anisopliae 755

Paecilomyces fumosoroseus 2956

Bahia

Beauveria bassiana 1479 1959 1960
1961 1962 2075

Metarhizium anisopliae 1045 1282

1299 1379 1382 1896 1898 1900

Metarhizium anisopliae var. *anisopliae* 1894 1958

Nomuraea rileyi 1972

Unidentified 3474

Ceará

Beauveria bassiana 753 757 783 784
785 786 787 788 804 805 2637

Erynia sp. 876 880 884

Hirsutella guyana 2993

Hirsutella sp. 2644 2645 2646 2647

2648 2649 2650 2651 2652 2653 2654

2655 2656 2657 2992

Espírito Santo

Beauveria bassiana 1483

Metarhizium anisopliae 1044

Metarhizium anisopliae var. *anisopliae* 925

Penicillium sp. 2643

Federal District

Beauveria bassiana 3018 3019

Metarhizium anisopliae 552

Metarhizium anisopliae var. *anisopliae* 3479

Paecilomyces fumosoroseus 3480

Paecilomyces lilacinus 3481

Unidentified 3475 3476

Goiás

Beauveria bassiana 733 734 735 736

737 738 739 752 754 758 806 809 928

930 931 933 934 956 957 1476 1478

1971 2079 2191 2625 2626 2636 2938

2942 2943 2944 2961

Conidiobolus nr. *coronatus* 1884

Conidiobolus sp. 1477 2193

Entomophaga australiensis 743 1888

Entomophaga sp. 1230

Erynia sp. 1241

Furia americana 742 2192 2194

Hirsutella sp. 1625

Metarhizium anisopliae 724 725 727

728 729 759 760 782 808 929 932

939 955 2076 2077 2212 2213 2214

2510 2513 2635 2941 2949 2951

Metarhizium anisopliae var. *anisopliae* 1448 1882 1883 1885 1952
1970 2514

Mixed culture 3472

Nomuraea rileyi 935 936

Paecilomyces amoenoroseus 2078
2215 2958 2959 2960

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744 2216 2217 2219 2220 2221 2952

Paecilomyces sp. 741

Pandora delphacis 1238 1936

Penicillium sp. 2950

Unidentified 3626 3629 3633 3639

3640 3641 3642 3643 3644 3645 3646

3647 3648 3649 3650 3651 3652 3653

3654 3655 3656 3657

Verticillium chlamydosporium 2218

Zoophthora radicans 789 790 1492

1493 1494 1495 1496 1497 1498 1499

1500 1501 1502 1503 1504 1541 1542

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1586 1587 1588 1589 1590 1591 1593

1594 1595 1928 1929 1930 1931 1932

1933 1934 1935 1937 2196

Maranhão

Unidentified 3630 3635

Mato Grosso

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942 943 944 945 946 947 948 949

950 951 952 953 982 2402 2403 2404

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- Czechoslovakia**
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2670 2673 2674 2675 2678
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Tolypocladium cylindrosporum 2777
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- Faarevejle**
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2496 2497 2502
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Entomophthora schizophorae 2667
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- Frederiksborg**
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- Hornsherred**
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- København**
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- Lammfjorden**
Erynia sp. 2664
- Ribe**
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- Roskilde**
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Tolypocladium cylindrosporum 2920
Tolypocladium geodes 3275 3276
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- Hertfordshire**
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1733 1734
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Erynia sp. 2507
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1487 1488
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Unknown state
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813 814 815 1150 1157 1159 1160
1165 1167 1168 1169 1170 1182 1186
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1322 1323 1324 1325 1389 1396 1397
1404 1405 1406 1407 1408 1409 1410
1411 1412 1413 1414 1512 1513 1515
1516 1517 1523 1524 1792 1793 1794
1864 1865 1866 1975 1976 1977 1978
1979 1980 1982
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978 3145
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- Eure-et-Loir**
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- Seine-Maritime**
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- Vaucluse**
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Paecilomyces fumosoroseus 1506
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2321 2322 2458 2461 2462 2463 3120
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- Germany
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Unknown state
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- Greece
Unknown state
Beauveria bassiana 1802 1803 1812
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Unknown state
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Unknown state
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- India
Unknown state
Aspergillus sp. 3698
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Beauveria brongniartii 2660
Beauveria sp. 2412
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medium 3223
Fusarium sp. 2232 2418 2595
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Conidiobolus sp. 211
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Karnataka
Conidiobolus bangalorensis 449
Tamil Nadu
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Fusarium subglutinans 2141 2142 2143
2144 2145
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- Indonesia
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Verticillium lecanii 2149 2150
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Aschersonia aleyrodis 2154
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Entomophaga sp. 2083
Erynia sp. 2097
Fusarium coccophilum 2098
Hirsutella citrififormis 1917 1918 1919
2099 2100 2101 2102 2103 2420 2422
2423 2426 2428
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pliae 2080 2105 2106 2424
Metarhizium anisopliae var. *majus*
2151
Paecilomyces fumosoroseus 2425 2429
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2094 2095 2096 2409
Pandora nr. *delphacis* 2132 2146
Zoophthora radicans 2410 2411
Jawa Tengah, Java
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Sulawesi Selatan, Celebes
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Conidiobolus nr. *coronatus* 599 600
Conidiobolus sp. 595 596
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- Israel
Unknown state
Conidiobolus osmodes 79
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Pandora neoaphidis 78
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Zoophthora radicans 80 81 103 104
114 139 195
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Zoophthora radicans 3623
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Conidiobolus obscurus 74
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Pandora nr. *echinospora* 138
Zoophthora radicans 105 106 107 108
109 110 111 112
- Italy
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Paecilomyces fumosoroseus 1568 1569
1577 1578 1579
Verticillium lecanii 973 1102
Emilia-Romagna
Beauveria bassiana 1103 1104 1107
1110 1113 1114 1115 1117 1118 1119
1122 1558
Metarhizium anisopliae 1112 1116
1120
Paecilomyces farinosus 1108 1111
Paecilomyces fumosoroseus 1576
Verticillium lecanii 1109
Lazio
Beauveria sp. 1195 1196 1197 1198
1201 1202 1203 1204 1205 1206 1207
1209 1210 1211 1213 1214 1215 1216
1218 1219 1220 1221 1222 1224
Fusarium sp. 1307
Trichothecium roseum 1212 1226 1308
Trichothecium sp. 1217 1223
Sicily
Beauveria bassiana 1106

Toscana	Nagano Prefecture	Lab. manipulation
<i>Beauveria bassiana</i> 1525 1526 1527 1528	<i>Beauveria amorphia</i> 1682	Unknown state
<i>Beauveria</i> sp. 1199 1200 1208	<i>Beauveria bassiana</i> 1683	<i>Ascosphaera proliperda</i> 696
Umbria	<i>Beauveria brongniartii</i> 1676	<i>Beauveria bassiana</i> 275 276 277 278 279 280 281 282 2785 3113 3215
<i>Beauveria bassiana</i> 1529 1531	Nagasaki Prefecture	<i>Conidiobolus coronatus</i> 1736 1737
<i>Paecilomyces fumosoroseus</i> 1530 1532	<i>Beauveria bassiana</i> 1678	<i>Conidiobolus obscurus</i> 832 1741
Venetia	Nara Prefecture	<i>Conidiobolus thromboides</i> 84 85
<i>Beauveria bassiana</i> 1121	<i>Hirsutella</i> sp. 1668	<i>Culicinomyces clavisporus</i> 1260 2482
Ivory Coast	Oita Prefecture	<i>Entomophaga australiensis</i> 1920
Unknown state	<i>Paecilomyces andoi</i> 1684	<i>Entomophaga calopteni</i> 500
<i>Hirsutella thompsonii</i> 257	<i>Paecilomyces flavovirescens</i> 1686	<i>Entomophaga macleodii</i> 770 771 772 775 776 3077 3078 3079
Jamaica	Osaka Prefecture	<i>Entomophaga maimaiga</i> 1746 2661 3110
Unknown state	<i>Beauveria bassiana</i> 1553 1554 1555 1556	<i>Entomophaga praxibuli</i> 2721 2963 2964 2965 2966 2967 2968 2969 2970 3058 3059 3060 3061 3067 3068 3069 3356 3357 3358
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Japan	Saitama Prefecture	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i> 3127
Unknown state	<i>Basidiobolus ranarum</i> 1139	<i>Pandora delphacis</i> 2046 2047
<i>Beauveria bassiana</i> 302 303 304 305 308	<i>Paecilomyces fumosoroseus</i> 989	<i>Verticillium lecanii</i> 310 311 312 313 314 811
<i>Cordyceps militaris</i> 2416	<i>Verticillium lecanii</i> 994	<i>Zoophthora radicans</i> 161 162 183 184 185 186 187 188 491 899 1841 2697 2698 2699 2704 2705 2707 2710 2711 2714 3117 3118 3151 3161 3163 3172 3217 3355
<i>Metarhizium anisopliae</i> var. <i>majus</i> 1092 1093	Shizuoka Prefecture	
Aichi Prefecture	<i>Conidiobolus obscurus</i> 1146	
<i>Beauveria bassiana</i> 1041	Tokyo Prefecture	
Aomori Prefecture	<i>Aspergillus flavus</i> 1003 1010	
<i>Paecilomyces farinosus</i> 1043	<i>Beauveria bassiana</i> 1001 1007	
Chiba Prefecture	<i>Beauveria brongniartii</i> 985 1680	
<i>Entomophaga aulicae</i> 2373 2374	<i>Beauveria</i> sp. 1040 1681	
<i>Entomophaga maimaiga</i> 2370 2371	<i>Conidiobolus thromboides</i> 1006	
Fukui Prefecture	<i>Entomophaga aulicae</i> 198 998	
<i>Entomophaga asiatica</i> 1393 1659	<i>Entomophthora</i> sp. 999	
Fukuoka Prefecture	<i>Erynia</i> sp. 983	
<i>Conidiobolus coronatus</i> 997	<i>Hirsutella satumaensis</i> 996	
<i>Conidiobolus obscurus</i> 1131	<i>Metarhizium anisopliae</i> 1009 1011 1046	
<i>Erynia</i> sp. 1052 1266 1267	<i>Metarhizium anisopliae</i> var. <i>majus</i> 988 1015	
<i>Pandora blunckii</i> 1004	<i>Nomuraea rileyi</i> 1014 1047	
<i>Pandora delphacis</i> 134 1101 1124 1132 1133 1264 1268	<i>Paecilomyces canadensis</i> 984 990	
<i>Pandora neoaphidis</i> 1134	<i>Paecilomyces fumosoroseus</i> 1005	
Unidentified 1013 1051	<i>Paecilomyces lilacinus</i> 986	
<i>Verticillium lecanii</i> 1002	<i>Paecilomyces</i> sp. 1008	
<i>Zoophthora radicans</i> 1050 1125 1136 1263	<i>Pandora blunckii</i> 1000	
Hokkaido Prefecture	<i>Pandora delphacis</i> 1265	
<i>Entomophaga aulicae</i> 2362 2363 2365 2366 2367 2368 2369	<i>Pandora neoaphidis</i> 993 1137	
<i>Erynia</i> sp. 1143	<i>Tilachlidium</i> sp. 2415	
<i>Zoophthora radicans</i> 1674 1675	<i>Verticillium lecanii</i> 991	
Ibaraki Prefecture	<i>Zoophthora radicans</i> 1048	
<i>Beauveria bassiana</i> 1098		
<i>Beauveria</i> sp. 1685		
<i>Entomophaga aulicae</i> 1140 1655 1656 1657 1751 2372		
<i>Furia neopyralidarum</i> 1145		
Ishikawa Prefecture		
<i>Beauveria bassiana</i> 1677		
<i>Entomophaga maimaiga</i> 1390 1391 1392 1400 1658		
Iwate Prefecture		
<i>Paecilomyces farinosus</i> 1042		
Kumamoto Prefecture		
<i>Beauveria bassiana</i> 1679		
	Kenya	
	Unknown state	
	<i>Beauveria bassiana</i> 2685 2686 2687	
	Korea	
	Unknown state	
	<i>Beauveria bassiana</i> 2040	
	<i>Fusarium semitectum</i> 2053	
	<i>Hirsutella bogoriensis</i> 2187	
	<i>Hirsutella repens</i> 2348 2359 2394	
	<i>Metarhizium anisopliae</i> 2038 2039	
	<i>Torribiella homopterorum</i> 2045	
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		<i>Conidiobolus coronatus</i> 512 514 524
		<i>Conidiobolus</i> sp. 522
		<i>Paecilomyces farinosus</i> 531
		<i>Paecilomyces lilacinus</i> 1552
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		<i>Zoophthora radicans</i> 1100
		Wellesley Province
		<i>Conidiobolus coronatus</i> 520 523
		<i>Conidiobolus</i> sp. 517
		<i>Paecilomyces farinosus</i> 763
		Mali
		Unknown state
		<i>Aspergillus niger</i> 3143
		<i>Aspergillus</i> sp. 3048
		<i>Fusarium acuminatum</i> 3218
		<i>Fusarium</i> sp. 3051
		<i>Metarhizium</i> sp. 3618
		<i>Paecilomyces marquandii</i> 3047 3049
		Koulikoro
		Unidentified 3380 3381

Mexico

Unknown state

Beauveria bassiana 319 2693 3287
3288 3309 3311
Beauveria sp. 3289
Fusarium sp. 3296 3300 3676 3677
Metarhizium anisopliae 1912
Metarhizium anisopliae var. *anisopliae* 3146 3290 3291 3292 3293
3294 3297 3305 3306 3307 3308
Nomuraea rileyi 3301
Unidentified 3298 3299
Zoophthora phalloides 351
Zoophthora radicans 379

Baja California

Basidiobolus haptospora 263
Fusarium sp. 3672 3679
Paecilomyces fumosoroseus 3302

Colima

Beauveria bassiana 3310 3312
Metarhizium anisopliae 2764
Paecilomyces fumosoroseus 3313
Paecilomyces javanicus 3303
Unidentified 3304

Durango

Beauveria bassiana 2857
Verticillium sp. 2822 2832

Jalisco

Beauveria bassiana 2330

Mexico

Metarhizium anisopliae var. *anisopliae* 2469

Nuevo Leon

Beauveria bassiana 2487 2544 2545
3285

Sinaloa

Beauveria bassiana 2484 2485 2486

Tamaulipas

Aschersonia sp. 3014 3015
Metarhizium anisopliae var. *anisopliae* 3295
Nomuraea rileyi 2492
Paecilomyces tenuipes 2488 2489 2490
2491

Morocco

Unknown state

Beauveria bassiana 1153 1154 1155
1163 1164 1171 1172 1173 1174 1175
1176 1177 1178 1179 1180 1181 1183
1188 1189 1190 1309 1311 1312 1313
1811 1815 1816 1817 1818 1819 1820
1821
Fusarium sp. 1310

Nepal

Unknown state

Cladosporium sp. 3706
Sterile mycelium 3711
Tolypocladium cylindrosporum 3392
3393
Tolypocladium niveum 3433

Netherlands

Unknown state

Metarhizium flavoviride 2026
Utrecht
Aschersonia aleyrodis 2268

New Zealand

Unknown state

Metarhizium anisopliae 2518
Paecilomyces sp. 309
Tolypocladium extingens 2921
Tolypocladium cylindrosporum 2911

North Island

Metarhizium anisopliae 1187

South Island

Beauveria bassiana 3055 3063 3065
3066 3070
Beauveria brongniartii 3054
Metarhizium anisopliae 3056 3057
3064
Tolypocladium cylindrosporum 841
976 1027 1028

Nicaragua

Unknown state

Beauveria bassiana 3443 3445 3448
3453
Unidentified 3440

Niger

Unknown state

Metarhizium flavoviride var. *minus*
3341

Nigeria

Unknown state

Conidiobolus coronatus 206

Oman

Unknown state

Metarhizium anisopliae 3610 3611

Pakistan

Unknown state

Fusarium sp. 3704 3707
Metarhizium anisopliae 3605 3619
Sterile mycelium 3703 3705 3712

Papua New Guinea

Unknown state

Aphanocladium album 2161
Aspergillus flavus 2157 2158 2159
Beauveria sp. 2164
Metarhizium anisopliae 3604
Metarhizium anisopliae var. *anisopliae* 2156 2162 2163 2165 2166
2167
Paecilomyces farinosus 2155
Paecilomyces viridis 2160
Scopulariopsis sp. 2169
Verticillium indicum 2170

East New Britain

Fusarium lateritium 2304
Fusarium semitectum 2299 2300
Fusarium solani 2311 2312 2313 2314
Fusarium sp. 2302 2303
Fusarium subglutinans 2301

New Britain

Hirsutella thompsonii 258 414

Peru

Unknown state

Paecilomyces lilacinus 2183
Andes Mountains
Beauveria bassiana 1969

Philippines

Unknown state

Hirsutella citriformis 1243 1244 1245
1246 1247 1248 1249 1250 1251 1252
1253 1254 1255 1256 1257 1258 1259
Metarhizium flavoviride var. *minus*
1546 1547

Abra

Nomuraea rileyi 1762

Benguet

Aspergillus flavus 2818
Aspergillus sp. 2765 2817 2820
Beauveria bassiana 2725 2727 2728
2729 2737 2739 2748 3197 3198 3199
Beniowskia sp. 2751
Conidiobolus coronatus 2730
Conidiobolus firmipilleus 2731
Conidiobolus sp. 2771 2772 2815 2816
3208
Fusarium sp. 2736 2743 2776
Metarhizium anisopliae 2735 2741
2805 2806 2809
Metarhizium anisopliae var. *anisopliae* 2742 3187 3190 3196
Mixed culture 2738 2740 3178
Paecilomyces farinosus 2724 2726
2734 3191
Paecilomyces fumosoroseus 2733 2744
2745 2749 3179 3188
Pandora blunckii 2824 3200 3201 3202
Scopulariopsis sp. 3189 3203
Unidentified 2746 2747 2752 2821
Verticillium sp. 2810
Zoophthora radicans 2732 2893 3204
3205 3206

Cagayan

Metarhizium album 2081

Laguna

Aspergillus sp. 3176
Conidiobolus coronatus 405 406 418
419 421 422
Metarhizium anisopliae var. *anisopliae* 3180
Metarhizium album 1942 1943

Leyte

Hirsutella citriformis 2347 2598
Metarhizium album 2176 2177 2178
2179
Nomuraea rileyi 2174
Paecilomyces farinosus 2175
Paecilomyces lilacinus 2181 2182 2185
2186

Manila

Aschersonia insperata 2356 2357 2358
Beauveria bassiana 2041
Beauveria brongniartii 1431
Conidiobolus coronatus 511
Entomophaga sp. 1126
Hirsutella citriformis 490 684 1036
1062 1063 1064 1436

- Hirsutella guyana* 2352 2387
Hirsutella inasperata 2396
Hirsutella sp. 1096
Hirsutella strigosa 2044 2197
Hirsutella verticilloides 2599
Metarhizium anisopliae 455 456 457
485 486 487 488 489 543 1284 1285
1286 1290 1300 1304 2043 2353
Metarhizium album 1840
Metarhizium flavoviride var. minus
1099 1271 1272 1273 1274 1275 1276
1277 1279 1283 1287 1288 1289 1291
1292 1293 1294 1295 1296 1297 1301
1302 1303 1305 1945 2037
Nomuraea rileyi 481 482 483 1761
2395
Paecilomyces farinosus 2344 2355
Paecilomyces fumosoroseus 2198 2376
Paecilomyces lilacinus 2184
Paecilomyces reniformis 429 484
Paecilomyces sp. 2354
Pandora delphacis 458 459 460 461
478
Unidentified 1703
Zoophthora radicans 1699
- Mindanao**
Hirsutella citriformis 1549
Nomuraea rileyi 1756 1757 1758 1759
1760
- Misamis Oriental**
Hirsutella sp. 2208 2209
- Palawan**
Beauveria bassiana 1269 1270
Hirsutella citriformis 1550
Hirsutella sp. 1551
Hirsutella thompsonii 1947
Metarhizium anisopliae 1432 1435
1545 1548 2341 2342 2343
Metarhizium album 1941
Metarhizium flavoviride var. minus
2339
Paecilomyces reniformis 2340
- Pangasinan**
Aspergillus sp. 3195
Metarhizium anisopliae var. anisopliae 3193 3194
Paecilomyces amoenoroseus 3192
Paecilomyces fumosoroseus 2804
- Quezon**
Beauveria bassiana 3181
Metarhizium anisopliae 2808
Metarhizium anisopliae var. majus
1914 1946
Mixed culture 3182
Paecilomyces farinosus 2807 3183
3184 3185 3186
Paecilomyces fumosoroseus 3177
- Poland**
Unknown state
Basidiobolus haptospora 1347
Beauveria bassiana 156 157 158 301
333 334 335 474 1359
Beauveria brongniartii 1360 1366
Conidiobolus thromboides 86 87 631
633 634 635
- Erynia* sp. 1338
Furia ithacensis 1339 1340
Fusarium lateritium 1331 1416
Hirsutella nr. *haptosporus* 1362 1363
1364
Hirsutella radiata 1369
Hirsutella subulata 2227
Metarhizium anisopliae var. majus
1858 1859
Paecilomyces farinosus 475 476 1348
1349 1354 1355 1358
Pandora dipterigena 1422
Pandora neoaphidis 608 609 610 611
612 613 614 636 637
Polycephalomyces formosus 1424
Sterile mycelium 1353
Trichoderma sp. 1361
Unidentified 1356 1415 1417 1419
1420 1421 1423
Verticillium lecanii 972 1330 1332
1333 1334 1335 1351 1352 1357
Verticillium nr. *cephalosporium* 1365
Zoophthora radicans 1336 1337 1341
1342 1343 1344 1345 1346 1350 1428
- Kalisz**
Hirsutella haptosporus 2226
- Pniewy**
Hirsutella nr. *haptosporus* 2228
- Szczecin**
Conidiobolus obscurus 243
Conidiobolus thromboides 242 244 245
246 247 630 632
Pandora neoaphidis 638 639
- Warsaw**
Verticillium lecanii 1367
- Portugal**
Unknown state
Beauveria bassiana 3220
Pandora neoaphidis 1600
- Azores**
Metarhizium anisopliae var. anisopliae 3329
Paecilomyces fumosoroseus 2679
- PR China**
Unknown state
Beauveria bassiana 501 502 533 652
708 709
Metarhizium anisopliae 712
- Hunan**
Beauveria brongniartii 656 678
Trichothecium sp. 653
- Hupei**
Beauveria bassiana 654 679 714 717
719
Pandora delphacis 665 666 667 669
676 698 713
Zoophthora radicans 685
- Jiangsu**
Paecilomyces sp. 680
Pandora delphacis 657 659 660 668
672 673 674 682 686 716
- Kiangsu**
Fusarium sp. 687
Paecilomyces sp. 385
- Kwon Tung**
Conidiobolus coronatus 655
Conidiobolus lachnodes 700
Metarhizium anisopliae 683
- Zhijiang**
Beauveria bassiana 718
Metarhizium anisopliae 703
Nomuraea rileyi 711
Paecilomyces javanicus 720
Pandora delphacis 670
- Rumania**
Munteniae
Beauveria bassiana 299
- Scotland**
Grampian
Beauveria caledonica 2567
- Senegal**
Unknown state
Fusarium nygamai 2316
- Solomon Islands**
Unknown state
Calcarisporium ovalisporum 2035
2036
- Guadalcanal**
Calcarisporium ovalisporum 1907
Entomophaga sp. 1881
Gibellula clavulifera var. *alba* 1909
Hirsutella citriformis 1908 1913
Metarhizium flavoviride var. minus
1763 1764 1765 1766 1767 1768 1769
1770 1771 1772 1773
Nomuraea atypicola 1904
Nomuraea rileyi 1879 1893
Torrubiella ratticaudata 1915 1916
Verticillium nr. *araneorum* 1905
- South Africa**
Cape Province
Unidentified 3374
- Spain**
Unknown state
Aspergillus sp. 1152
Beauveria bassiana 886 1149 1166
1788 1804 1805 1806 1807 1808 1809
1810 1813 1814
Pandora neoaphidis 1601 1602 1603
2085 2086
Sterile mycelium 3710
Trichothecium roseum 3708
Verticillium lecanii 3709
- Sri Lanka**
Unknown state
Beauveria bassiana 2454
Fusarium sp. 1828
Gibellula pulchra 1732
Hirsutella citriformis 1837
Verticillium lecanii 555 1033 1774
- Sweden**
Unknown state
Drechmeria coniospora 2468
Verticillium fusisporum 923
Zoophthora radicans 189

Switzerland

Unknown state

Batkoa apiculata 395 919 927 1660
1661

Batkoa gigantea 214 215 403

Beauveria bassiana 2694

Beauveria brongniartii 1069

Conidiobolus coronatus 1572 1573
1574 1575

Conidiobolus sp. 391

Entomophaga aulicae 393

Entomophthora culicis 387

Entomophthora muscae 392

Eryniopsis caroliniana 640 641 642

Erynia conica 1752 1753

Erynia curvispora 1754

Erynia ovispora 399 400

Furia virescens 394 427 470 1129

Metarhizium anisopliae 1066 1373
1374 1375 1376 1377

Pandora blunckii 915 917 920

Pandora dipterigena 397

Zoophthora anglica 396 916 926

Zoophthora aphidis 425

Zoophthora lanceolata 426 469

Zoophthora radicans 388 389 404 914
1130

Schaffhausen

Beauveria bassiana 1566 1567

Pandora dipterigena 1720

Zoophthora radicans 1719

Thurgau

Beauveria brongniartii 1067 1068
1070 1071 1072 1076 1077

Zürich

Pandora blunckii 1715 1716 1717 1718

Tanzania

Unknown state

Metarhizium flavoviride 3391

Tchad

Unknown state

Metarhizium sp. 3616 3617

Thailand

Unknown state

Conidiobolus coronatus 525 528

Metarhizium anisopliae 3609

Metarhizium anisopliae var. *anisopliae* 538

Nomuraea rileyi 539

Tilletiopsis sp. 527 572 573

Togo

Unknown state

Beauveria bassiana 2688 2689 2690
2691 2692

Trinidad and Tobago

Unknown state

Metarhizium anisopliae 3621

Turkey

Unknown state

Beauveria bassiana 3169

Verticillium lecanii 980

Ankara

Beauveria bassiana 3153 3154 3155
3156 3157 3158 3166 3167 3168

USA

Unknown state

Beauveria bassiana 3620 3622

Conidiobolus coronatus 205

Metarhizium anisopliae 1903 3608

Pandora nouri 366

Verticillium lecanii 17

Alabama

Erynia sp. 2027

Pandora delphacis 2028

Alaska

Zoophthora radicans 13

Arizona

Cladosporium cladosporioides 3463

Entomophaga calopteni 497 623 625
626 646 766

Entomophaga macleodii 496 618 619
620 621 624 628 629 765 767 768
769 773 774 777 778 779

Verticillium lecanii 3464

Arkansas

Pandora delphacis 3484

Pandora neoaphidis 3248 3249 3250
3251

Sorospora uvela 1123

California

Arthrobotrys dactyloides 2934 3733

Arthrobotrys musiformis 3730

Arthrobotrys oligospora 3732

Basidiobolus haplospora 262 264

Basidiobolus microsporus 265 266 267
268 269

Basidiobolus ranarum 260

Conidiobolus sp. 1672

Conidiobolus thromboides 15 29 115
208

Drechmeria coniospora 3346

Entomophthora muscae 2172

Fusarium sp. 3668 3669 3670 3671
3673 3674 3675 3678

Hirsutella rhossiliensis 2788 2789

2790 2791 2792 2793 2794 2931
2932 2933

Hirsutella sp. 2795 2796 2797 2798

2799 2801 2802 2803

Hirsutella thompsonii 2800

Lagenidium giganteum 1384 3327

Metarhizium anisopliae 1897

Monacrosporium cionopagum 3349

Monacrosporium ellipsosporum 3348
3731

Myriodontium keratinophilum 368
386

Nematoconus sp. 3351 3352

Paecilomyces farinosus 1939 3658
3659 3660 3661 3662 3663

Tolypocladium cylindrosporum 705
1580

Verticillium balanoides 3350

Verticillium lecanii 3324

Colorado

Conidiobolus obscurus 3080

Pandora neoaphidis 3081 3082

Connecticut

Entomophaga maimaiga 2775

Metarhizium anisopliae 3713 3720
3721

Unidentified 3722

Verticillium lecanii 3264 3265 3266
3267 3268 3269 3270

Delaware

Beauveria bassiana 2570 2571 2572
2573

Zoophthora phytonomi 2188

District of Columbia

Fusarium coccophilum 821

Florida

Aphanocladium album 3680

Aschersonia aleyrodii 341 342 430 432

Aschersonia goldiana 343 431

Basidiobolus sp. 2048 2049 2050 2051
2052

Beauveria bassiana 320 412 413 416
2869 3086

Conidiobolus coronatus 3222

Cladosporium cladosporioides 3085

Conidiobolus sp. 3406 3407

Conidiobolus thromboides 39

Hirsutella citrififormis 1035 1446

Hirsutella thompsonii 137 241 253

Leptoglenia chapmanii 2562 2680 2682

Metarhizium anisopliae 1080

Paecilomyces farinosus 2658 2954

Paecilomyces fumosoroseus 2247 3076
3083 3322 3682

Paecilomyces javanicus 322

Paecilomyces lilacinus 410

Paecilomyces sp. nov. 3084

Podonectria coccicola 3736

Sorospora uvela 1856

Tolypocladium cylindrosporum 2912

Unidentified 2563

Verticillium lecanii 321

Georgia

Beauveria bassiana 336 337 2676

Entomophaga aulicae 251

Fusarium sp. 2568 2569

Hawaii

Beauveria bassiana 3040 3042

Metarhizium anisopliae 3043 3044
3045

Idaho

Beauveria bassiana 2336 2860 2861
2864 2879 2880 2881 2882 2883

Conidiobolus coronatus 2812 2813
2814

Conidiobolus thromboides 2828 2829
2830 2849 2850

Fusarium sp. 2333 2337

Pandora neoaphidis 2874 2875 2876
3240 3365 3366 3367

Stachybotrys sp. 2863

Unidentified 3368

- Verticillium lecanii* 2334 2858 2859
2862 2877 2878
Verticillium sp. 2332
Zoophthora radicans 2811
- Illinois**
Erynia sp. 1666
Zoophthora phytonomi 3342 3343 3344
Zoophthora radicans 1938 2549 2550
2551 2552 2716 2717 2718 2719 2720
3283 3284
- Kansas**
Beauveria bassiana 792 2430
Entomophaga calopteni 2522
- Kentucky**
Beauveria bassiana 2270 2271
Paecilomyces farinosus 2269
Pandora neoaphidis 3411 3412 3459
Unidentified 3239
Verticillium lecanii 810
- Louisiana**
Basidiobolus ranarum 2787
Candida sp. 1857
Conidiobolus coronatus 2715
Conidiobolus lamprauges 2338
Conidiobolus osmodes 447
Conidiobolus rhyosporus 448
Lagenidium giganteum 749
- Maine**
Beauveria bassiana 252 353
Conidiobolus obscurus 129 174 175
182
Coelomycidium simulii 218
Conidiobolus sp. 92 93 94 147 148
Conidiobolus thromboides 2 5 40 41
57
Entomophaga aulicae 51 164 165 166
167 168 172
Erynia rhizospora 219
Hirsutella gigantea 30 177 178
Pandora dipterigena 131
Pandora neoaphidis 181
Pandora nouryi 199
Saprolegnia sp. 179 180
Verticillium lecanii 204
Zoophthora occidentalis 207
Zoophthora radicans 21 44 45 50 52
88 141 142 143 144 145 146 163 221
222 223 224 225 226 227 228 229
230 231 232 233 234 235
- Maryland**
Aspergillus flavus 2833
Basidiobolus sp. 270
Beauveria bassiana 2831 3404 3529
3530
Conidiobolus adiaeretus 451
Candida sp. 1877
Fusarium polyphialidicum 3696
Fusarium sp. 3532
Paecilomyces farinosus 2131 2835
3492 3498 3507 3524 3526 3666
Penicillium sp. 2834 2836
Schizangiella serpentis 203
- Massachusetts**
Beauveria bassiana 1 3037
Entomophaga maimaiga 2779
Fusarium polyphialidicum 3694
- Paecilomyces farinosus* 3
Pandora bullata 116
Penicillium sp. 3036
Verticillium ?cephalosporum 3035
Verticillium lecanii 3259 3260 3261
3262 3263
- Michigan**
Beauveria bassiana 2580
Conidiobolus sp. 1967
Metarhizium anisopliae var. *anisopliae* 1968
Zoophthora radicans 2977 2978 2979
2980
- Mississippi**
Nomuraea rileyi 135
- Missouri**
Nomuraea rileyi 762
- Montana**
Beauveria brongniartii 32
Conidiobolus obscurus 3088 3089 3090
3091 3092
Conidiobolus thromboides 22 2914
Entomophaga calopteni 408
Sorospora sp. 377
- Nebraska**
Beauveria bassiana 3111 3112
- Nevada**
Ascosphaera aggregata 689
- New Hampshire**
Entomophaga maimaiga 2780
Tolypocladium niveum 3398
Verticillium lecanii 3258
- New Jersey**
Fusarium sp. 3030 3031 3032
- New York**
Arthrotrichia oligospora var. *oligospora*
3369 3370
Arthrotrichia dactyloides 3371 3372
3373
Batkoa major 2936 3102 3103
Beauveria bassiana 534 535 536 1038
1039 1081 1619 1620 1621 1622 1623
1624 1704 1705 1706 1707 1708 1709
1710 1711 1712 1713 1721 1722 1723
1749 1750 1775 1776 1777 1778 1779
1780 1781 2030 2031 2032 2033 2034
2953 3460 3667
Conidiobolus coronatus 3087 3109
Conidiobolus obscurus 3099 3130 3131
3132 3133 3134 3135 3137 3138 3139
3140 3141
Conidiobolus thromboides 3129 3136
Drechmeria coniospora 3354
Entomophaga aulicae 3016 3039 3212
3602
Entomophaga conglomerata 2273
Entomophaga macleodii 382 499
Entomophaga maimaiga 3052 3053
Entomophaga tabanivora 627
Entomophthora muscae 454 556 557
651 803 826 2014 3074
Erynia aquatica 750 764
Erynia conica 2274 2275 2277
Erynia curvispora 802
Erynia rhizospora 801 2276
Fusarium polyphialidicum 3692 3693
- Furia ithacensis* 663
Furia pieris 781
Ghiocladium roseum 3001
Hirsutella brownorum 3509
Hirsutella rhossiliensis 3207
Hymenostilbe verrucosa 2002
Metarhizium anisopliae 1280 1298
1878 2547 2548
Metarhizium anisopliae var. *anisopliae* 3108 3211 3330 3331 3332
3333 3334 3335 3336 3337 3338 3339
3340
Massospora cicadina 374
Paecilomyces farinosus 648 697 2564
3017 3152 3461 3595 3596 3597 3598
3599
Pandora delphacis 3062 3072 3093
3094 3095 3096 3106 3107
Pandora dipterigena 1887 1923
Pandora neoaphidis 1570 2583 2584
2585 2587 2588 2589 2591 2592 2593
2594 2754 2755 2756 2757 2758 2760
2761 2762 2763 2766 2767 2768 2769
2773 2781 2782 2783 2784 2837 2838
2839 2840 2842 2844 2845 2846 2847
2848 2851 2852 2853 2854 2855 2856
2865 2866 2867 2868 2870 2872 2873
Unidentified 1922 2999 3128 3735
Verticillium balanoides 3173
Verticillium lecanii 900 3257 3600
3601
Zoophthora occidentalis 2841 3027
3028 3029 3071 3073
Zoophthora phytonomi 202
Zoophthora radicans 237 238 239 800
1921 3100 3104 3105 3376 3377 3390
- North Carolina**
Conidiobolus brefeldianus 452
Conidiobolus sp. 3409
Culicinomyces clavisporus 372 582
583 584 585 706
Hirsutella thompsonii 254
Lagenidium giganteum 373 748
Metarhizium anisopliae 23
Neozygites sp. 662
- North Dakota**
Entomophaga macleodii 3025
- Ohio**
Beauveria bassiana 296 306 307
Engyodontium araneorum 2929 2935
- Oklahoma**
Beauveria bassiana 2455
- Oregon**
Acremonium berkeleyanum 2067
Acrodontium crateriforme 2070
Ascosphaera aggregata 690
Ascosphaera apis 691 692
Ascosphaera atra 693
Beauveria bassiana 201 2054
Filobasidiella arachnophila 2058
Fusarium avenaceum 2060
Fusarium merismoides 2059
Humicola sp. 2069
Metarhizium anisopliae 2107
Mortierella clausenii 2062
Mortierella hyalina 2061

- Mortierella* sp. 2063
Paecilomyces farinosus 2057 2937
Penicillium thomii 2056
Phialophora malorum 2072
Phoma cava 2071
Sterile mycelium 2073
Trichothecium roseum 2055
Unidentified 2528
Verticillium coccosporum 2064
Verticillium fungicola 2065
Verticillium lecanii 2066
- Pennsylvania
Aphanomyces sp. 2005
Beauveria bassiana 2976 3528
Catenaria anguillulae 2015
Hirsutella rhossiliensis 2006 2007
2008
Lagenidium caudatum 2003
Leptolegnia sp. 2004
Paecilomyces farinosus 20 3221 3491
3499 3500 3506 3523
Verticillium lecanii 3252 3253 3254
3255
- Puerto Rico
Conidiobolus coronatus 1147
Cladosporium cladosporioides 3375
- Rhode Island
Beauveria bassiana 317 318
- South Carolina
Arthrobotrys oligospora 3347
Leptolegnia chapmanii 2681
Metarhizium anisopliae 2575
- South Dakota
Beauveria bassiana 2579
Entomophaga calopteni 498
- Tennessee
Macrobiotophthora vermicola 650
- Texas
Ascosphaera apis 2683
Conidiobolus sp. 2819 2928
Hirsutella thompsonii 259
Paecilomyces farinosus 3572 3573
3574 3575 3576 3577 3578 3579 3580
3581 3582 3583 3584 3585 3586 3587
3588 3589 3590 3591 3592 3593 3594
- Vermont
Beauveria bassiana 3543
Entomophaga aulicae 2843
Hirsutella sp. 1 2939 2940
Hirsutella sp. 3546 3548 3553
Metarhizium anisopliae 3540 3541
3542 3544
Paecilomyces farinosus 3537 3538
3564
Paecilomyces sp. 3545
Unidentified 3560 3567 3568 3569
3570 3571
Verticillium ?lecanii 3315 3316 3317
Verticillium lecanii 2930 3314 3318
3554 3555 3557 3558 3559 3562 3563
Verticillium sp. 3539 3547 3549 3550
3551 3552 3556 3561
- Virginia
Beauveria bassiana 3405 3527
Conidiobolus pumilus 453
Fusarium polyphialidicum 3695
- Fusarium sambucinum* 3483
Paecilomyces farinosus 3490 3493
3494 3496 3497 3501 3502 3503 3504
3505 3508 3664 3665
- Washington
Beauveria bassiana 344 1079 3385
3386 3387
Conidiobolus sp. 3383 3384
Metarhizium anisopliae 3388 3389
Pandora neoaphidis 3234 3237 3238
3241 3410
- West Virginia
Paecilomyces farinosus 3495 3517
3518 3519 3520 3521 3522 3525 3533
Verticillium sp. 3531
- Wisconsin
Beauveria bassiana 793 3216
Conidiobolus paulus 450
Conidiobolus thromboides 649
Metarhizium anisopliae 794
Verticillium lecanii 795
Zoophthora radicans 1018 1019 1020
1021 1261 1262
- Wyoming
Entomophaga calopteni 383 390
- Venezuela
Unknown state
Verticillium lecanii 974
- Vietnam
Unknown state
Beauveria bassiana 751
- Wales
Powys
Erynia rhizospora 1442
- Western Samoa
Apia
Metarhizium anisopliae var. *anisopliae* 2223
Metarhizium anisopliae var. *majus*
297 298
- USSR
See Commonwealth of Independent States.
- Yugoslavia
Unknown state
Beauveria bassiana 505 506 507 510
Conidiobolus sp. 1426
Pandora neoaphidis 1695 1784 1785
1786 1824 1825 1826 1827 2124 2128
Unidentified 1693 1694
Verticillium lecanii 1787
Zoophthora radicans 2282 2283 2284
2285 2288 2289 2703 2709 2712 3114
3115 3116
- Belgrade
Batkoa major 1427
Conidiobolus sp. 2130
Erynia sp. 2279 2292 2294
Pandora neoaphidis 1696 2016 2108
2109 2110 2111 2112 2114 2115 2116
2117 2118 2119 2120 2121 2122 2280
2293 2298
- Zoophthora phalloides* 2281
Zoophthora radicans 2240 2241 2242
2243 2244 2245 2246 2286 2287 2696
2700 2701 2702 2706 2708 2713 3119
3149 3150 3159 3160 3164 3165 3170
3171
- Bosnia and Hercegovina
Pandora neoaphidis 2123
- Croatia
Beauveria bassiana 509
- Serbia
Beauveria bassiana 503 504
- Voyvodina
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2020
Unidentified 2022
- Zimbabwe
Unknown state
Hirsutella thompsonii 255 2459

Abbott Laboratories

102A *Beauveria bassiana* 1782
102B(2) *Beauveria bassiana* 1838
104, 106 *Beauveria bassiana* 1783
106 *Beauveria bassiana* 1839
106(2) *Beauveria bassiana* 1652
112 *Beauveria bassiana* 1654
114(2) *Beauveria bassiana* 1653
122-1 *Beauveria bassiana* 1651
124 *Beauveria bassiana* 1747
1985-3-69 *Beauveria bassiana* 1889
89-201 *Beauveria bassiana* 2695
AARC 8401-A(1) *Beauveria bassiana* 1689
AARC 8401-A(2) *Beauveria bassiana* 1690
AARC 8401-B *Beauveria bassiana* 1691
AARC 8401-D *Beauveria bassiana* 1692
Bb028-138 *Beauveria bassiana* 1843
Bb028-148 *Beauveria bassiana* 1844
Bb028-150 *Beauveria bassiana* 1845
Bb028-5F *Beauveria bassiana* 1842
Bb029-13 *Beauveria bassiana* 1846
Bb029-13, "3 of 4" *Beauveria bassiana* 1748

Abrahamson, D.S.

5 *Tolypocladium niveum* 3398

Ahn, S.B.

D2-4 *Metarhizium anisopliae* 2038
E1-22 *Torribiella homopterorum* 2045
E1-7 & E1-5 *Fusarium semitectum* 2053
E2-13 *Metarhizium anisopliae* 2039
E5-1 *Beauveria bassiana* 2040

Al-Aidroos, Karen

19-1a5 (EMS mutant) *Metarhizium anisopliae* 911
19.1 (EMS mutant) *Metarhizium anisopliae* 966
42.2 (EMS mutant of 5.42) *Metarhizium anisopliae* 1025
42.2a9 (EMS mutant) *Metarhizium anisopliae* 921
5.173 (EMS mutant) *Metarhizium anisopliae* 909
5.281 (mutant) *Metarhizium anisopliae* 922
5.287 (EMS mutant) *Metarhizium anisopliae* 967
5.304 (EMS mutant of 5A) *Metarhizium anisopliae* 1022
5.378 (EMS mutant) *Metarhizium anisopliae* 965
5A (UV irradiated mutant of 5) *Metarhizium anisopliae* 1087
5A.1 (EMS mutant of 5A) *Metarhizium anisopliae* 1085
5A.10 (EMS mutant of 5A) *Metarhizium anisopliae* 1086
5A.11 (EMS mutant of 5A) *Metarhizium anisopliae* 1083
5A.12 (EMS mutant of 5A) *Metarhizium anisopliae* 1088
5A.7 (EMS mutant of 5A) *Metarhizium anisopliae* 1084

D198A *Metarhizium anisopliae* 912
D95A (diploid, recombinant) *Metarhizium anisopliae* 913
D95A Bes 140 (recombinant) *Metarhizium anisopliae* 910
DIII 3A (mutant) *Metarhizium anisopliae* 968
DIII 3B (mutant) *Metarhizium anisopliae* 960
DIII 3B Bes 48 (recombinant) *Metarhizium anisopliae* 907
JIIXIV (mutant) *Metarhizium anisopliae* 1091
JIVD (mutant) *Metarhizium anisopliae* 1097
JX1.23A (mutant) *Metarhizium anisopliae* 1024
JX1.23C (mutant) *Metarhizium anisopliae* 1023
JXIV.245 (mutant) *Metarhizium anisopliae* 1089
KIIVA (mutant) *Metarhizium anisopliae* 1090
S7N5 (mutant) *Metarhizium anisopliae* 908

Allee, Leslie

84-1 *Beauveria bassiana* 1704
84-10 *Beauveria bassiana* 1711
84-11 *Beauveria bassiana* 1712
84-12 *Beauveria bassiana* 1713
84-13 *Beauveria bassiana* 1721
84-16 *Beauveria bassiana* 1749
84-18 *Beauveria bassiana* 1750
84-19 *Beauveria bassiana* 1722
84-20 *Beauveria bassiana* 1723
84-22 *Beauveria bassiana* 1775
84-23 *Beauveria bassiana* 1776
84-24 *Beauveria bassiana* 1777
84-25 *Beauveria bassiana* 1778
84-26 *Beauveria bassiana* 1779
84-27 *Beauveria bassiana* 1780
84-28 *Beauveria bassiana* 1781
84-3 *Beauveria bassiana* 1705
84-4 *Beauveria bassiana* 1706
84-5 *Beauveria bassiana* 1707
84-7 *Beauveria bassiana* 1708
84-8 *Beauveria bassiana* 1709
84-9 *Beauveria bassiana* 1710

Alves, Sergio Batista

196 *Beauveria bassiana* 1484
197 *Beauveria bassiana* 1832
210 *Beauveria brongniartii* 1830
246 *Beauveria bassiana* 1479
252 *Beauveria bassiana* 1480
256 *Beauveria bassiana* 1478
258 *Beauveria brongniartii* 1829
267 *Beauveria bassiana* 1833
268 *Beauveria bassiana* 1834
290 *Beauveria bassiana* 2638
290 *Beauveria bassiana* 2559
292 *Beauveria bassiana* 2639
295 *Beauveria* sp. 1835
309 *Beauveria bassiana* 1836
447 *Beauveria bassiana* 3734
507 *Metarhizium anisopliae* 2561

587 Unidentified 2640
61 *Beauveria bassiana* 1483
621 *Beauveria amorpha* 2641
63 *Beauveria bassiana* 1831
695 *Beauveria bassiana* 2642
715 *Paecilomyces* sp. 2613
716 *Paecilomyces* sp. 2614
717 *Paecilomyces* sp. 2615
718 *Paecilomyces* sp. 2616
719 *Paecilomyces* sp. 2617
720 *Paecilomyces* sp. 2618
721 *Beauveria bassiana* 2619
726 *Beauveria bassiana* 2621
758 *Paecilomyces* sp. 2620
SPL-54A *Metarhizium anisopliae* 2560

Aoki, Joji

Ash. 1 *Aschersonia aleyrodis* 992
Asp. 11 *Aspergillus flavus* 1003
Asp. 26 *Aspergillus flavus* 1010
Beau. 2 *Beauveria* sp. 1040
Beau. 22 *Beauveria brongniartii* 985
Beau. 3 *Beauveria bassiana* 1007
Beau. 5 *Beauveria bassiana* 1001
Cordy. 1 *Paecilomyces farinosus* 1042
Ent. 11 *Conidiobolus coronatus* 997
Ent. 14 *Entomophaga aulicae* 998
Ent. 15 *Conidiobolus thromboides* 1006
Ent. 18 *Erynia* sp. 983
Ent. 25 *Pandora neoaphidis* 993
Ent. 26 *Zoopththora radicans* 1050
Ent. 30 *Pandora blunckii* 1000
Ent. 34 *Erynia* sp. 1266
Ent. 35 *Pandora blunckii* 1004
Ent. 36 *Pandora delphacis* 1101
Ent. 37 *Erynia* sp. 1267
Ent. 38 Unidentified 1013
Ent. 39 Unidentified 1051
Ent. 42 *Erynia* sp. 1052
Ent. 45 *Entomophthora* sp. 999
Ent. 5 *Zoopththora radicans* 1263
Ent. 6 *Pandora delphacis* 1264
Ent. 7 *Pandora delphacis* 1265
Ent. 8 *Zoopththora radicans* 1048
Ent. 9 *Conidiobolus obscurus* 1131
Har. 1 *Verticillium lecanii* 1002
Har. 2 *Verticillium lecanii* 991
Hir. 1 *Hirsutella satumaensis* 996
Isa. 1 *Beauveria bassiana* 1041
Met. 1 *Metarhizium anisopliae* var. *majus* 988
Met. 4 *Metarhizium anisopliae* var. *majus* 1015
Met. 5 *Metarhizium anisopliae* 1009
Met. 6 *Metarhizium anisopliae* 1046
Met. 8 *Metarhizium anisopliae* 1011
Nom. 1 *Paecilomyces* sp. 1008
Nom. 2 *Nomurea rileyi* 1014
Nom. 3 *Nomurea rileyi* 1047
Paec. 1 *Paecilomyces farinosus* 1043
Paec. 2 *Paecilomyces fumosoroseus* 1005
Paec. 3 *Paecilomyces fumosoroseus* 989
Paec. 5 *Paecilomyces lilacinus* 986
Paec. 6 *Paecilomyces canadensis* 984
Paec. 7 *Paecilomyces canadensis* 990
Vert. 1 *Verticillium lecanii* 994

ARSEF

- 101 *Conidiobolus thromboides* 1733
 102 *Conidiobolus thromboides* 363
 102 *Conidiobolus thromboides* 1734
 103 *Zoophthora radicans* 823
 103 *Zoophthora radicans* 370
 103 *Zoophthora radicans* 359
 1035 *Hirsutella citriformis* 1446
 1045 *Metarhizium anisopliae* 1299
 1103 *Beauveria bassiana* 1558
 1140 *Entomophaga aulicae* 1656
 1142 (lost) *Entomophaga aulicae* 1655
 115 *Conidiobolus thromboides* 15
 115 *Conidiobolus thromboides* 208
 115 *Conidiobolus thromboides* 3360
 117 (lost) *Conidiobolus thromboides* 42
 1184 *Metarhizium flavoviride* 2024
 1299 *Metarhizium anisopliae* 1045
 133 *Conidiobolus obscurus* 355
 1331 *Fusarium lateritium* 1416
 1336 *Zoophthora radicans* 1428
 1356 Unidentified 1420
 1416 *Fusarium lateritium* 1331
 1420 Unidentified 1356
 1428 *Zoophthora radicans* 1336
 1446 *Hirsutella citriformis* 1035
 1451 (deaccessioned) *Beauveria bassiana* 1971
 1452 (deaccessioned) *Metarhizium anisopliae* var. *anisopliae* 1989
 1481 (lost) *Beauveria brongniartii* 1829
 1482 (lost) *Beauveria brongniartii* 1830
 15 *Conidiobolus thromboides* 115
 15 *Conidiobolus thromboides* 208
 15 *Conidiobolus thromboides* 3361
 1544 *Zoophthora radicans* 1595
 1557 (deaccessioned) *Hirsutella versicolor* 1034
 1558 *Beauveria bassiana* 1103
 1595 *Zoophthora radicans* 1544
 1656 *Entomophaga aulicae* 1140
 1660 *Batkoa apiculata* 927
 1661 *Batkoa apiculata* 919
 1667 (deaccessioned) Unidentified 1634
 1733 *Conidiobolus thromboides* 101
 1734 *Conidiobolus thromboides* 102
 1734 *Conidiobolus thromboides* 363
 1869 (lost) *Zoophthora phalloides* 352
 193 (lost) *Conidiobolus osmodes* 447
 2 *Conidiobolus thromboides* 3364
 2024 *Metarhizium flavoviride* 1184
 208 *Conidiobolus thromboides* 15
 208 *Conidiobolus thromboides* 115
 212 (deaccessioned) *Eryniopsis caroliniana* 642
 213 (deaccessioned) *Eryniopsis caroliniana* 640
 2210 *Metarhizium* sp. 2225
 2225 *Metarhizium* sp. 2210
 23 *Metarhizium anisopliae* 1097
 23 *Metarhizium anisopliae* 1094
 23 *Metarhizium anisopliae* 1091
 23 *Metarhizium anisopliae* 1090
 23 *Metarhizium anisopliae* 1089
 23 *Metarhizium anisopliae* 1088
 23 *Metarhizium anisopliae* 1087
 23 *Metarhizium anisopliae* 1086
 23 *Metarhizium anisopliae* 1085
 23 *Metarhizium anisopliae* 1084
 23 *Metarhizium anisopliae* 1083
 23 *Metarhizium anisopliae* 1025
 23 *Metarhizium anisopliae* 1024
 23 *Metarhizium anisopliae* 1023
 23 *Metarhizium anisopliae* 1022
 23 *Metarhizium anisopliae* 968
 23 *Metarhizium anisopliae* 967
 23 *Metarhizium anisopliae* 966
 23 *Metarhizium anisopliae* 965
 23 *Metarhizium anisopliae* 960
 23 *Metarhizium anisopliae* 922
 23 *Metarhizium anisopliae* 921
 23 *Metarhizium anisopliae* 913
 23 *Metarhizium anisopliae* 912
 23 *Metarhizium anisopliae* 911
 23 *Metarhizium anisopliae* 910
 23 *Metarhizium anisopliae* 909
 23 *Metarhizium anisopliae* 908
 23 *Metarhizium anisopliae* 907
 2336 *Beauveria bassiana* 2883
 2348 *Hirsutella repens* 2359
 2348 *Hirsutella repens* 2394
 2350 *Paecilomyces* sp. 2378
 2351 *Aschersonia insperata* 2397
 2352 *Hirsutella guyana* 2387
 2359 *Hirsutella repens* 2348
 2359 *Hirsutella repens* 2394
 2375 (never frozen) *Paecilomyces farinosus* 2344
 2377 (never frozen) *Paecilomyces* sp. 2354
 2378 *Paecilomyces* sp. 2350
 2379 (never frozen) *Paecilomyces farinosus* 2355
 2380 (never frozen) *Paecilomyces reniformis* 2340
 2381 (never frozen) *Metarhizium anisopliae* 2341
 2382 (never frozen) *Metarhizium anisopliae* 2353
 2383 (never frozen) *Metarhizium anisopliae* 2341
 2384 (never frozen) *Metarhizium anisopliae* 2342
 2385 (never frozen) *Metarhizium anisopliae* 2343
 2387 *Hirsutella guyana* 2352
 2388 (never frozen) *Hirsutella citriformis* 2346
 2389 (never frozen) *Hirsutella citriformis* 2347
 2390 (never frozen) *Nomuraea rileyi* 2345
 2391 (never frozen) *Aschersonia insperata* 2356
 2392 (never frozen) *Aschersonia insperata* 2357
 2393 (never frozen) *Aschersonia insperata* 2358
 2394 *Hirsutella repens* 2348
 2394 *Hirsutella repens* 2359
 2397 *Aschersonia insperata* 2351
 2524 (deaccessioned) *Zoophthora radicans* 2499
 2559 *Beauveria bassiana* 2638
 2562 *Leptogorgia chapmanii* 2680
 2575 *Metarhizium anisopliae* 3608
 258 *Hirsutella thompsonii* 414
 2638 *Beauveria bassiana* 2559
 2649 *Hirsutella* sp. 2992
 2650 *Hirsutella guyana* 2993
 2662 (deaccessioned) *Erynia* sp. 2553
 2669 (deaccessioned) *Zoophthora radicans* 2554
 2680 *Leptogorgia chapmanii* 2562
 2700 *Zoophthora radicans* 3171
 2701 *Zoophthora radicans* 3119
 2703 *Zoophthora radicans* 3116
 2706 *Zoophthora radicans* 3149
 2709 *Zoophthora radicans* 3114
 2713 *Zoophthora radicans* 3164
 2883 *Beauveria bassiana* 2336
 2992 *Hirsutella* sp. 2649
 2993 *Hirsutella* sp. 2650
 3114 *Zoophthora radicans* 2709
 3116 *Zoophthora radicans* 2703
 3119 *Zoophthora radicans* 2701
 3149 *Zoophthora radicans* 2706
 3164 *Zoophthora radicans* 2713
 3171 *Zoophthora radicans* 2700
 3283 *Zoophthora radicans* 3284
 3284 *Zoophthora radicans* 3283
 332 (lost) *Entomophaga australiensis* 331
 3328 (deaccessioned) *Lagenidium giganteum* 3327
 3353 (deaccessioned) *Arthrobotrys dactyloides* 2934
 3359 *Conidiobolus thromboides* 41
 3360 *Conidiobolus thromboides* 15
 3360 *Conidiobolus thromboides* 115
 3360 *Conidiobolus thromboides* 208
 3361 *Conidiobolus thromboides* 15
 3361 *Conidiobolus thromboides* 115
 3361 *Conidiobolus thromboides* 208
 3362 *Conidiobolus thromboides* 40
 3363 *Conidiobolus thromboides* 70
 3364 *Conidiobolus thromboides* 2
 3397 (deaccessioned) *Tolypocladium niveum* 3321
 354 *Conidiobolus obscurus* 824
 355 *Conidiobolus obscurus* 133
 359 *Zoophthora radicans* 823
 359 *Zoophthora radicans* 370
 363 *Conidiobolus thromboides* 102
 363 *Conidiobolus thromboides* 1734
 368 *Myriodontium keratinophilum* 386
 369 *Pandora kondoiensis* 825
 370 *Zoophthora radicans* 823
 370 *Zoophthora radicans* 359
 386 *Myriodontium keratinophilum* 368
 40 *Conidiobolus thromboides* 3362
 41 *Conidiobolus thromboides* 3359
 414 *Hirsutella thompsonii* 258
 424 (lost) *Eryniopsis caroliniana* 641
 466 (lost) *Entomophthora muscae* 392
 467 (lost) *Zoophthora aphidis* 425
 541 (lost) *Culicinomyces clavisporus* 644
 62 (lost) *Zoophthora radicans* 3623
 643 (lost) *Zoophthora aphidis* 425

70 *Conidiobolus thromboides* 3363
746 (deaccessioned) *Lagenidium giganteum* 373
82 (lost) *Zoophthora phytonomi* 113
823 *Zoophthora radicans* 370
823 *Zoophthora radicans* 359
824 *Conidiobolus obscurus* 354
825 *Pandora kondoiensis* 369
84 *Conidiobolus thromboides* 85
85 *Conidiobolus thromboides* 84
86 *Conidiobolus thromboides* 87
87 *Conidiobolus thromboides* 86
888 (deaccessioned) *Metarhizium anisopliae* 872
9 (lost) *Pandora bullata* 116
919 *Batkoa apiculata* 1661
927 *Batkoa apiculata* 1660
96 (lost) *Conidiobolus coronatus* 1738
995 (deaccessioned) *Conidiobolus obscurus* 1131
?1066 *Pandora dipterigena* 397
?1096 *Hirsutella citriformis* 1256
?1256 *Hirsutella* sp. 1096
?1294 *Metarhizium flavoviride* var. *minus* 1295
?1295 *Metarhizium flavoviride* var. *minus* 1294
?1377 *Zoophthora anglica* 396
?1940 *Lagenidium giganteum* 2529
?198 *Entomophaga aulicae* 998
?2529 *Crypticola clavulifera* 1940
?2696 *Zoophthora radicans* 3161
?2702 *Zoophthora radicans* 3117
?2708 *Zoophthora radicans* 3163
?3117 *Zoophthora radicans* 2702
?3161 *Zoophthora radicans* 2696
?3163 *Zoophthora radicans* 2708
?396 *Metarhizium anisopliae* 1377
?397 *Metarhizium anisopliae* 1066
?411 *Hirsutella thompsonii* 255
?426 *Zoophthora lanceolata* 468
?468 *Zoophthora lanceolata* 426
?998 *Entomophaga aulicae* 198

ATCC

12584 *Conidiobolus pumilus* 453
12588 *Conidiobolus rhyosporus* 448
12589 *Conidiobolus adiaeretus* 451
12590 *Conidiobolus osmodes* 447
12942 *Conidiobolus paulus* 450
14270 *Conidiobolus thromboides* 208
14270 *Conidiobolus thromboides* 115
14270 *Conidiobolus thromboides* 15
16576 *Conidiobolus bangalorensis* 449
18981 *Tolypocladium niveum* 616
24298 *Pandora bullata* 116
24318 *Beauveria bassiana* 1
24319 *Paecilomyces farinosus* 3
24418 *Conidiobolus obscurus* 74
24419 *Conidiobolus thromboides* 73
24493 *Zoophthora radicans* 72
24874 *Hirsutella thompsonii* 137
26156 *Beauveria brongniartii* 617
28691 *Conidiobolus coronatus* 205
28847 *Conidiobolus brefeldianus* 452
3010 *Hirsutella thompsonii* 255

32245 *Zoophthora radicans* 3623
32797 *Zoophthora radicans* 189
32867 *Conidiobolus coronatus* 206
32969 *Metarhizium flavoviride* 2133
34292 *Zoophthora phytonomi* 113
34698 *Pandora blunckii* 217
34948 *Nomuraea anemonoides* 2467
36654 *Tolypocladium niveum* 3433
42438 *Tolypocladium cylindrosporum* 962
46576 *Verticillium balanoides* 2483
52635 *Culicinomyces clavosporus* 964
56502 *Tolypocladium geodes* 3274
58381 *Aphanomyces* sp. 2005
58382 *Catenaria anguillulae* 2015
58383 *Lagenidium caudatum* 2003
58384 *Leptogegnia* sp. 2004
60335 *Metarhizium anisopliae* var. *anisopliae* 925
60336 *Metarhizium anisopliae* var. *anisopliae* 1894
64258 *Mortierella hyalina* 2061
64259 *Verticillium coccosporem* 2064
64864 *Mortierella clausenii* 2062
64865 *Acremonium berkeleyanum* 2067
76239 *Crypticola clavulifera* 1940
76240 *Lagenidium giganteum* 2531

Balazy, Stanislaw

1428 *Verticillium lecanii* 1330
1431 *Polycephalomyces formosus* 1424
1437 *Fusarium lateritium* 1416
1437 *Fusarium lateritium* 1331
1441 *Hirsutella radiata* 1369
1451' Unidentified 1419
1453c *Verticillium lecanii* 1333
1453k *Verticillium lecanii* 1334
1480 *Verticillium lecanii* 1332
1496c *Pandora dipterigena* 1422
1508m Unidentified 1423
1539 *Verticillium lecanii* 1335
1541 *Verticillium lecanii* 1367
1547b Unidentified 1417
1550 Unidentified 1415
1552 Unidentified 1421
1555 *Zoophthora radicans* 1428
1555 *Zoophthora radicans* 1336
1558b *Zoophthora radicans* 1337
1559 *Erynia* sp. 1338
1561 *Furia ithacensis* 1339
1561a *Furia ithacensis* 1340
1577/6 *Zoophthora radicans* 1341
1577/7 *Zoophthora radicans* 1342
1577/8 *Zoophthora radicans* 1343
1578/1 *Zoophthora radicans* 1344
1578/1-2 *Zoophthora radicans* 1346
1578/2 *Zoophthora radicans* 1345
1580b *Basidiobolus haptosporus* 1347
1584c *Paecilomyces farinosus* 1348
1584e *Paecilomyces farinosus* 1349
1585a *Tritirachium isariae* 1425
1589 *Zoophthora radicans* 1350
1592 *Verticillium lecanii* 1351
1592b *Verticillium lecanii* 1352
1594 Sterile mycelium 1353
1594a *Paecilomyces farinosus* 1354

1594b *Paecilomyces farinosus* 1355
1594d *Beauveria brongniartii* 1366
1595c Unidentified 1420
1595c Unidentified 1356
1595d *Verticillium lecanii* 1357
1595e *Paecilomyces farinosus* 1358
1597a *Beauveria bassiana* 1359
1599 *Beauveria brongniartii* 1360
1599a *Trichoderma* sp. 1361
1613b *Hirsutella* nr. *haptosporus* 1362
1613c *Hirsutella* nr. *haptosporus* 1363
1613d *Hirsutella* nr. *haptosporus* 1364
1615 *Verticillium* nr. *cephalosporium* 1365
1765 *Hirsutella haptosporus* 2226
1770 *Hirsutella* nr. *haptosporus* 2228
1809 *Hirsutella subulata* 2227

Baloch, Lori

C86 *Nomuraea rileyi* 2205

Barrior, G.

Nr-BS *Nomuraea rileyi* 1762

Barron, George L.

10277 *Metarhizium anisopliae* 2042

Ben-Ze'ev, Israel

38 *Conidiobolus thromboides* 194

Benny, Gerald L.

21A *Coemansia* sp. 2452

Bissett, John

164 *Tolypocladium nubicola* 3434
384 *Tolypocladium geodes* 3271
530 *Tolypocladium niveum* 3280
570 *Tolypocladium geodes* 3272
633 *Tolypocladium nubicola* 3435
737 *Tolypocladium cylindrosporum* 962
83M-38 *Tolypocladium niveum* 3395
88M-143 *Tolypocladium niveum* 3321
938 *Tolypocladium geodes* 3273

Blaschke, Renate

1 *Schizangiella* sp. 2237
14 *Schizangiella* sp. 2239

Boucias, Drion G.

5788 Unidentified 2555

Bradley, Cliff

GMP1 *Beauveria bassiana* 2570
GMP2 *Beauveria bassiana* 2571

Brownbridge, Michael

A *Verticillium lecanii* 3252
B *Verticillium lecanii* 3253
B-1 *Verticillium* sp. 3539
B-18 *Metarhizium anisopliae* 3542
B-2 *Metarhizium anisopliae* 3540
B-33 *Beauveria bassiana* 3543
B-35 *Metarhizium anisopliae* 3544
B-36 *Metarhizium anisopliae* 3565
B-38 *Paecilomyces* sp. 3545
B-5 *Metarhizium anisopliae* 3541
C *Verticillium lecanii* 3254
D *Verticillium lecanii* 3255
DT-122 *Verticillium ?lecanii* 3315
F *Verticillium lecanii* 3257

F1.2 *Verticillium lecanii* 3683
F10 *Verticillium lecanii* 3691
F2.3 *Verticillium lecanii* 3684
F3.1 *Verticillium lecanii* 3685
F4 *Verticillium lecanii* 3686
F5 *Verticillium lecanii* 3687
F6 *Verticillium lecanii* 3688
F7 *Verticillium lecanii* 3689
F9 *Verticillium lecanii* 3690
G *Verticillium lecanii* 3258
HL-1.1 *Paecilomyces farinosus* 3537
HL-2.3 *Paecilomyces farinosus* 3538
HL-4 Unidentified 3567
HL-5 Unidentified 3568
HL-6 Unidentified 3569
I *Verticillium lecanii* 3259
J *Verticillium lecanii* 3260
K *Verticillium lecanii* 3261
L *Verticillium lecanii* 3262
M *Verticillium lecanii* 3263
N *Verticillium lecanii* 3264
O *Verticillium lecanii* 3265
P *Verticillium lecanii* 3266
Perry 1 *Verticillium lecanii* 3318
Perry 2 *Verticillium lecanii* 3317
Perry 3 Unidentified 3319
Q *Verticillium lecanii* 3267
R *Verticillium lecanii* 3268
R-11 *Verticillium* sp. 3549
R-12 *Verticillium* sp. 3550
R-13 *Verticillium* sp. 3551
R-14 *Verticillium* sp. 3552
R-15 *Hirsutella* sp. 3553
R-20.1 *Verticillium lecanii* 3554
R-21 *Verticillium lecanii* 3555
R-22 *Verticillium* sp. 3556
R-23 *Verticillium lecanii* 3557
R-25 *Verticillium lecanii* 3558
R-27 *Verticillium lecanii* 3559
R-28 Unidentified 3560
R-29 *Verticillium* sp. 3561
R-31 *Verticillium lecanii* 3562
R-34 *Verticillium lecanii* 3563
R-38 *Paecilomyces farinosus* 3564
R-4 *Hirsutella* sp. 3546
R-48 *Paecilomyces* sp. 3566
R-6 *Verticillium* sp. 3547
R-9 *Hirsutella* sp. 3548
S *Verticillium lecanii* 3269
S-1 Unidentified 3571
T *Verticillium lecanii* 3270
WFT-3 Unidentified 3570
Williams *Verticillium lecanii* 3316

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05-78 *Beauveria bassiana* 2455

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2(HO-O-Hatch IV) *Fusarium avenaceum* 2060
3(RSRS-0/34) *Acremonium berkeleyanum* 2067
4(HO-O-Hatch VIII) *Verticillium lecanii* 2066
6(HO-O-Hatch VIII) *Verticillium fungicola* 2065
B *Fusarium merismoides* 2059
CH-O-66/201 Sterile mycelium 2073
E *Verticillium coccosporum* 2064
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I *Mortierella clausenii* 2062
RSRS-0/62 *Mortierella hyalina* 2061
RSRS-24/68 *Phialophora malorum* 2072
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A-II *Zoophthora radicans* 2287
A-IV *Zoophthora radicans* 2286
C-II *Zoophthora radicans* 2289
D-I *Zoophthora radicans* 2282
D-II *Zoophthora radicans* 2284
D-III *Zoophthora radicans* 2283
D-IV *Zoophthora radicans* 2288
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HOP-V *Zoophthora radicans* 2241
HOP-VI *Zoophthora radicans* 2245
HOP-VII *Zoophthora radicans* 2244

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1 *Beauveria bassiana* 3437
10 *Beauveria bassiana* 3446
11 *Beauveria bassiana* 3447
12 *Beauveria bassiana* 3448
13 *Beauveria bassiana* 3449
14 *Beauveria bassiana* 3450
15 *Beauveria bassiana* 3451
16 *Beauveria bassiana* 3452
17 *Beauveria bassiana* 3453
18 *Beauveria bassiana* 3454
19 *Beauveria bassiana* 3455
2 *Beauveria bassiana* 3438
20 *Beauveria bassiana* 3456
21 *Beauveria bassiana* 3457
3 *Beauveria bassiana* 3439
4 Unidentified 3440
5 *Beauveria bassiana* 3441
6 *Beauveria bassiana* 3442
7 *Beauveria bassiana* 3443
8 *Beauveria bassiana* 3444
9 *Beauveria bassiana* 3445

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140.57 *Conidiobolus paulus* 450
141.39 *Conidiobolus brefeldianus* 452
141.73 *Akanthomyces gracilis* 2919
152.56 *Conidiobolus pumilus* 453
155.56 *Conidiobolus osmodes* 447
157.56 *Conidiobolus rhyosporus* 448
182.60 *Conidiobolus obscurus* 74

183.60 *Conidiobolus thromboides* 15
183.60 *Conidiobolus thromboides* 115
183.60 *Conidiobolus thromboides* 208
194.77 *Pandora blunckii* 217
195.77 *Sporodiniella umbellata* 2895
207.66 *Conidiobolus pseudapiculatus* 196
216.66 *Zoophthora radicans* 189
216.78 *Hirsutella rhossiliensis* 2894
218.56 *Metarhizium flavoviride* 2133
276.82 *Tolypocladium cylindrosporum* 2911
316.51 *Metarhizium anisopliae* 2107
345.77 *Tolypocladium extingens* 2921
418.82 *Hirsutella citrififormis* 1446
418.82 *Hirsutella citrififormis* 1035
422.82 *Hirsutella versicolor* 1034
423.82 *Hirsutella versicolor* 1037
433.73 *Pseudogibellula formicarum* 2913
450.78 *Hirsutella thompsonii* 256
451.78 *Hirsutella thompsonii* 257
452.78 *Hirsutella thompsonii* 258
452.78 *Hirsutella thompsonii* 414
473.73 *Metarhizium flavoviride* 2026
511.88 *Stilbella buquetii* 2915
537.81 *Verticillium lecanii* 2916
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556.77B *Hirsutella thompsonii* 241
556.77C *Hirsutella thompsonii* 253
556.77D *Hirsutella thompsonii* 259
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615.82 *Drechmeria coniospora* 2468
645.74 *Beauveria vermiconia* 2922
700.74 *Metarhizium flavoviride* 1184
700.74 *Metarhizium flavoviride* 2024
718.70 *Tolypocladium cylindrosporum* 2920
741.73 *Akanthomyces gracilis* 2910
755.83 *Culicinomyces clavissporus* 964
756.73 *Sporothrix insectorum* 2918
770.73 *Sporothrix insectorum* 2909
789.85 *Verticillium coccosporum* 2064
790.85 *Mortierella clausenii* 2062
912.70 *Hirsutella citrififormis* 1036
952.73 *Hirsutella thompsonii* 137
989.73 *Tolypocladium cylindrosporum* 2912
999.73 *Stilbella buquetii* 2917
7719.70 *Tolypocladium cylindrosporum* 961

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962 *Tolypocladium niveum* 616

CCFC

DAOM 160594 *Tolypocladium niveum* 3278
DAOM 167132 *Tolypocladium niveum* 3432
DAOM 167133 *Tolypocladium tundrense* 3399
DAOM 167134 *Tolypocladium tundrense* 3400
DAOM 167175 *Tolypocladium niveum* 3279

DAOM 167176 *Tolypocladium cylin-*
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DAOM 167320 *Tolypocladium nubicola*
3434
DAOM 167321 *Tolypocladium geodes*
3271
DAOM 167322 *Tolypocladium niveum*
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DAOM 167323 *Tolypocladium geodes*
3272
DAOM 167324 *Tolypocladium nubicola*
3435
DAOM 167325 *Tolypocladium cylin-*
drosporum 962
DAOM 167326 *Tolypocladium geodes*
3273
DAOM 176470 *Tolypocladium geodes*
3274
DAOM 180479 *Tolypocladium cylin-*
drosporum 3392
DAOM 180480 *Tolypocladium cylin-*
drosporum 3393
DAOM 180481 *Tolypocladium niveum*
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DAOM 183952 *Tolypocladium cylin-*
drosporum 961
DAOM 183955 *Tolypocladium niveum*
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DAOM 184880 *Tolypocladium para-*
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DAOM 185687 *Tolypocladium niveum*
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DAOM 191103 *Tolypocladium microspo-*
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DAOM 191333 *Tolypocladium geodes*
3275
DAOM 191334 *Tolypocladium tundrense*
3401
DAOM 191336 *Tolypocladium geodes*
3276
DAOM 191338 *Tolypocladium niveum*
3396
DAOM 191855 *Beauveria caledonica*
2567
DAOM 198395 *Tolypocladium niveum*
3281
DAOM 199924 *Tolypocladium niveum*
3321
DAOM 210147 *Tolypocladium niveum*
3398
DAOM 63905 *Tolypocladium niveum*
3320
DAOM 64352 *Tolypocladium niveum*
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CG 134 Unidentified 3467
CG 135 Unidentified 3468
CG 145 *Beauveria bassiana* 2957
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CG 163 *Paecilomyces amoenoroseus*
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CG 164 *Paecilomyces amoenoroseus*
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CG 165 *Beauveria bassiana* 2961
CG 166 *Beauveria bassiana* 2962
CG 181 *Paecilomyces lilacinus* 3469
CG 182 Unidentified 3470
CG 186 Unidentified 3624
CG 187 Unidentified 3477
CG 188 Unidentified 3475
CG 189 Unidentified 3476
CG 193 Unidentified 3625
CG 262 Unidentified 3626
CG 263 Unidentified 3627
CG 264 Unidentified 3628
CG 265 Unidentified 3629
CG 266 Unidentified 3630
CG 268 Unidentified 3631
CG 269 Unidentified 3632
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CG 271 Unidentified 3634
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CG 304 Unidentified 3471
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CG 334 Unidentified 3637
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CG 339 *Metarhizium anisopliae* var.
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CG 345 Unidentified 3639
CG 346 Unidentified 3640
CG 347 Unidentified 3641
CG 348 Unidentified 3642
CG 349 Unidentified 3643
CG 35 *Paecilomyces fumosoroseus* 3480
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CG 351 Unidentified 3645
CG 352 Unidentified 3646
CG 353 Unidentified 3647
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CG 355 Unidentified 3649
CG 356 Unidentified 3650
CG 357 Unidentified 3651
CG 358 Unidentified 3652
CG 359 Unidentified 3653
CG 36 *Paecilomyces lilacinus* 3481
CG 360 Unidentified 3654
CG 361 Unidentified 3655
CG 362 Unidentified 3656
CG 363 Unidentified 3657
CG 6 Unidentified 3466
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Chernov, Kim

Ruby Mine *Conidiobolus* sp. 3409
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267 *Beauveria bassiana* 2632
268 *Beauveria bassiana* 2633
52 *Beauveria bassiana* 1450
53 *Metarhizium anisopliae* var. *aniso-*
pliae 1989
63 *Beauveria bassiana* 2630
81-11-25-01 *Beauveria bassiana* 730
81-11-25-04 *Beauveria bassiana* 756
81-11-25-05 *Beauveria bassiana* 731
81-11-25-07 *Beauveria bassiana* 732
82-07-27-01 *Beauveria bassiana* 928
82-1-15-02 *Beauveria bassiana* 735
82-1-15-05 *Paecilomyces fumosoroseus*
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82-1-15-06 *Paecilomyces* sp. 741
82-1-26-01 *Beauveria bassiana* 737
82-1-6-01 *Beauveria bassiana* 733
82-1-6-02 *Metarhizium anisopliae* 725
82-1-6-03 *Beauveria bassiana* 734
82-1-6-04 *Beauveria bassiana* 736
82-1-6-10 *Paecilomyces fumosoroseus*
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82-12-01 *Metarhizium anisopliae* var.
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82-12-15-01 *Metarhizium anisopliae* 929
82-12-15-02 *Beauveria bassiana* 930
82-12-20-01 *Beauveria bassiana* 931
82-12-20-02 *Metarhizium anisopliae* 932
82-12-20-02 *Beauveria bassiana* 933
82-2-15-01 *Beauveria bassiana* 752
82-2-15-02 *Metarhizium anisopliae* 729
82-2-15-03 *Metarhizium anisopliae* 760
82-2-15-04 *Metarhizium anisopliae* 724
82-2-15-05 *Paecilomyces fumosoroseus*
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82-2-2-01 *Metarhizium anisopliae* 727
82-2-3-01 *Beauveria bassiana* 739
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82-2-9-01 *Beauveria bassiana* 738
82-3-1-03 *Beauveria bassiana* 758
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82-3-23-01 *Beauveria bassiana* 757
82-3-24-01 *Beauveria bassiana* 753
82-4-1-01 *Metarhizium anisopliae* 759
82-4-29-01 *Beauveria bassiana* 785
82-4-30-01C *Beauveria bassiana* 784
82-4-30-01D *Beauveria bassiana* 804
82-4-4-01 *Beauveria bassiana* 754
82-4-5-01 *Metarhizium anisopliae* 755
82-5-3-01 *Beauveria bassiana* 805
82-5-3-03A *Beauveria bassiana* 788
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82-5-4-01 *Metarhizium anisopliae* 782
82-5-4-06 *Beauveria bassiana* 806

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B-4741 *Conidiobolus* sp. 2925
B-4742 *Conidiobolus* sp. 2924
B-4743 *Conidiobolus* sp. 2926
B-4744 *Conidiobolus* sp. 2927

82-5-6-01 *Beauveria bassiana* 787
82-5-6-02 *Beauveria bassiana* 783
82-5-7-3D-1 *Entomophaga australiensis* 791
82-6-25-01 *Zoophthora radicans* 789
82-6-25-02 *Zoophthora radicans* 790
82-6-28-01 *Beauveria bassiana* 809
82-7-23-01 *Metarhizium anisopliae* 808
83-01-06A (CB 97) *Beauveria bassiana* 958
83-01-06B (CB 15) *Beauveria bassiana* 959
83-02-18-01 *Nomuraea rileyi* 936
83-03-15-M *Beauveria bassiana* 947
83-03-15-O *Beauveria bassiana* 948
83-03-15-P *Beauveria bassiana* 949
83-03-15-Q *Beauveria bassiana* 950
83-03-15B *Beauveria bassiana* 951
83-03-15E *Beauveria bassiana* 946
83-03-15H *Beauveria bassiana* 952
83-03-16C *Beauveria bassiana* 941
83-03-16D *Beauveria bassiana* 942
83-03-16E *Beauveria bassiana* 943
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83-03-16G *Beauveria bassiana* 945
83-03-16K *Beauveria bassiana* 953
83-03-16L *Metarhizium anisopliae* 954
83-03-17B *Beauveria bassiana* 982
83-04-13-2L *Hirsutella guyana* 878
83-04-13-2M *Hirsutella guyana* 881
83-04-13-2P *Hirsutella guyana* 879
83-04-13-Q *Hirsutella guyana* 882
83-04-15-2A *Erynia* sp. 880
83-04-15-2B *Erynia* sp. 876
83-04-15-2C *Erynia* sp. 884
83-04-21-1J *Hirsutella guyana* 883
83-06-06-1 *Beauveria bassiana* 957
83-1-25-01 *Beauveria bassiana* 934
83-12-27 *Metarhizium anisopliae* var. *anisopliae* 1448
83-2-17-01 *Nomuraea rileyi* 935
83-3-3-01 *Beauveria bassiana* 937
83-3-3-02 *Beauveria bassiana* 938
83-3-3-03 *Metarhizium anisopliae* 939
83-4-27 *Metarhizium anisopliae* 955
83-5-27 *Beauveria bassiana* 956
84-02-30-2 *Beauveria bassiana* 1453
84-03-28-1A *Beauveria bassiana* 1457
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84-03-28-1F *Beauveria bassiana* 1454
84-03-28-1G *Beauveria bassiana* 1462
84-03-28-1L *Beauveria bassiana* 1463
84-03-28-D *Beauveria bassiana* 1455
84-03-29-1 *Beauveria bassiana* 1461
84-03-30-1A *Furia americana* 1242
84-03-30-2A-A *Zoophthora radicans* 1239
84-03-30-4B *Furia americana* 1240
84-03-31-2 *Beauveria bassiana* 1469
84-03-31-6 *Beauveria bassiana* 1466
84-04-02-1A *Beauveria bassiana* 1474
84-04-02-1B *Beauveria bassiana* 1473
84-04-02-2 *Beauveria bassiana* 1472
84-04-02-3 *Beauveria bassiana* 1470
84-04-02-4 *Beauveria bassiana* 1471
84-04-02-5A *Zoophthora radicans* 1237
84-04-02-5A *Beauveria bassiana* 1467

84-04-02-5B *Zoophthora radicans* 1231
84-04-02-5B *Beauveria bassiana* 1468
84-04-02-5C *Zoophthora radicans* 1232
84-04-02-5D *Zoophthora radicans* 1228
84-04-02-5J *Zoophthora radicans* 1236
84-04-02-6B *Zoophthora radicans* 1234
84-04-02-6F *Zoophthora radicans* 1229
84-04-02-6G *Zoophthora radicans* 1233
84-04-03-1A *Beauveria bassiana* 1465
84-04-03-1B *Beauveria bassiana* 1460
84-04-03-1C *Beauveria bassiana* 1475
84-04-03-1E *Beauveria bassiana* 1459
84-04-03-6A *Beauveria bassiana* 1456
84-04-03-6B *Zoophthora radicans* 1227
84-04-03-6B *Beauveria bassiana* 1464
84-04-09-1B *Entomophaga* sp. 1230
84-04-13-1B *Pandora delphacis* 1238
84-04-13-1C *Erynia* sp. 1241
84-04-25-1 *Beauveria bassiana* 1476
84-04-25-2 *Conidiobolus* sp. 1477
84-1-26 *Metarhizium anisopliae* var. *anisopliae* 1449
84-3-12 *Beauveria bassiana* 1971
85-05-02 *Paecilomyces lilacinus* 1951
85-06-14 *Nomuraea rileyi* 1950
85-7-21 *Metarhizium anisopliae* var. *anisopliae* 1952
85-7-22 *Beauveria bassiana* 1956
85-7-22-1 *Paecilomyces farinosus* 1957
85-7-23 *Beauveria bassiana* 1953
85-7-23-1 *Beauveria bassiana* 1954
85-7-23-2 *Beauveria bassiana* 1955
85-7-24 *Beauveria bassiana* 2075
85-7-24-1 *Metarhizium anisopliae* var. *anisopliae* 1958
85-7-24-2 *Beauveria bassiana* 1959
85-7-24-3 *Beauveria bassiana* 1960
85-7-24-4 *Beauveria bassiana* 1961
85-7-24-5 *Nomuraea rileyi* 1972
85-7-30 *Acremonium roseum* 1964
86-06-02-2 *Paecilomyces fumosoroseus* 2217
86-06-02-3 *Metarhizium anisopliae* 2211
86-06-05-1 *Paecilomyces fumosoroseus* 2216
86-06-05-1 *Paecilomyces fumosoroseus* 2221
86-06-05-2 *Paecilomyces amoenoroseus* 2215
86-06-05-3 *Paecilomyces fumosoroseus* 2219
86-06-05-4 *Paecilomyces fumosoroseus* 2220
86-06-05-6 *Verticillium chlamydosporium* 2218
86-06-05-7 *Metarhizium anisopliae* 2214
86-06-05-8 *Metarhizium anisopliae* 2213
86-06-05-9 *Metarhizium anisopliae* 2212
86-3-26 *Beauveria bassiana* 2191
86-4-24 *Furia americana* 2192
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86-5-21-A *Furia americana* 2194
88-07-16-10 *Hirsutella* sp. 2649
88-07-16-10 *Hirsutella* sp. 2992
88-07-16-11 *Hirsutella* sp. 2650
88-07-16-11 *Hirsutella guyana* 2993

88-07-16-12 *Hirsutella* sp. 2651
88-07-16-13 *Hirsutella* sp. 2652
88-07-16-14 *Hirsutella* sp. 2653
88-07-16-15 *Hirsutella* sp. 2654
88-07-16-16 *Hirsutella* sp. 2655
88-07-16-17 *Hirsutella* sp. 2656
88-07-16-18 *Hirsutella* sp. 2657
88-07-16-4 *Hirsutella* sp. 2644
88-07-16-5 *Hirsutella* sp. 2645
88-07-16-6 *Hirsutella* sp. 2646
88-07-16-7 *Hirsutella* sp. 2647
88-07-16-9 *Hirsutella* sp. 2648
88-5-6 *Beauveria bassiana* 2625
88-5-6A *Beauveria bassiana* 2626
88-5-6B *Metarhizium anisopliae* 2635
88-6-17 *Beauveria bassiana* 2636
88-6-22 *Beauveria bassiana* 2637
D4 *Metarhizium anisopliae* 2634
Pl-196 *Beauveria bassiana* 2629
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14 *Beauveria bassiana* 1053
15 *Beauveria bassiana* 1054
19 *Metarhizium anisopliae* 1055
25 *Metarhizium anisopliae* 1056
26 *Paecilomyces farinosus* 1065
30A *Metarhizium anisopliae* 1057
30B *Paecilomyces farinosus* 1058
31 *Beauveria bassiana* 1060
32 *Beauveria bassiana* 1061
39C *Metarhizium anisopliae* 1059

CP

1 *Beauveria bassiana* 730
10 *Beauveria bassiana* 736
100 *Metarhizium anisopliae* 955
101 *Beauveria bassiana* 956
102 *Beauveria bassiana* 957
104 *Beauveria bassiana* 958
105 *Beauveria bassiana* 959
106 *Erynia* sp. 876
108 *Hirsutella guyana* 878
109 *Hirsutella guyana* 879
110 *Erynia* sp. 880
111 *Hirsutella guyana* 881
112 *Hirsutella guyana* 882
113 *Hirsutella guyana* 883
114 *Erynia* sp. 884
122 *Metarhizium anisopliae* var. *anisopliae* 1448
123 *Metarhizium anisopliae* var. *anisopliae* 1449
124 *Beauveria bassiana* 1971
125 *Beauveria bassiana* 1450
126 *Metarhizium anisopliae* var. *anisopliae* 1989
127 *Zoophthora radicans* 1227
128 *Zoophthora radicans* 1228
129 *Zoophthora radicans* 1229
130 *Entomophaga* sp. 1230
131 *Zoophthora radicans* 1231
132 *Zoophthora radicans* 1232
133 *Zoophthora radicans* 1233
134 *Zoophthora radicans* 1234
136 *Zoophthora radicans* 1236

- 137 *Zoophthora radicans* 1237
- 138 *Pandora delphacis* 1238
- 139 *Zoophthora radicans* 1239
- 14 *Beauveria bassiana* 735
- 140 *Furia americana* 1240
- 141 *Erynia* sp. 1241
- 142 *Furia americana* 1242
- 143 *Beauveria bassiana* 1453
- 144 *Beauveria bassiana* 1454
- 145 *Beauveria bassiana* 1455
- 146 *Beauveria bassiana* 1456
- 147 *Beauveria bassiana* 1457
- 148 *Beauveria bassiana* 1458
- 149 *Beauveria bassiana* 1459
- 150 *Beauveria bassiana* 1460
- 151 *Beauveria bassiana* 1461
- 152 *Beauveria bassiana* 1462
- 153 *Beauveria bassiana* 1463
- 154 *Beauveria bassiana* 1464
- 155 *Beauveria bassiana* 1465
- 156 *Beauveria bassiana* 1466
- 157 *Beauveria bassiana* 1467
- 158 *Beauveria bassiana* 1468
- 159 *Beauveria bassiana* 1469
- 160 *Beauveria bassiana* 1470
- 161 *Beauveria bassiana* 1471
- 162 *Beauveria bassiana* 1472
- 163 *Beauveria bassiana* 1473
- 164 *Beauveria bassiana* 1474
- 165 *Beauveria bassiana* 1475
- 166 *Beauveria bassiana* 1476
- 167 *Conidiobolus* sp. 1477
- 168 *Beauveria bassiana* 1966
- 17 *Paecilomyces fumosoroseus* 723
- 170 *Metarhizium anisopliae* var. *anisopliae* 1970
- 171 *Metarhizium anisopliae* var. *anisopliae* 1882
- 172 *Metarhizium anisopliae* var. *anisopliae* 1883
- 173 *Conidiobolus* nr. *coronatus* 1884
- 174 *Metarhizium anisopliae* var. *anisopliae* 1885
- 175 *Nomuraea rileyi* 1950
- 176 *Paecilomyces lilacinus* 1951
- 177 *Metarhizium anisopliae* var. *anisopliae* 1952
- 178 *Beauveria bassiana* 1953
- 179 *Beauveria bassiana* 1954
- 18 *Paecilomyces fumosoroseus* 722
- 180 *Beauveria bassiana* 1955
- 181 *Beauveria bassiana* 1956
- 182 *Paecilomyces farinosus* 1957
- 183 *Beauveria bassiana* 2075
- 184 *Metarhizium anisopliae* var. *anisopliae* 1958
- 185 *Beauveria bassiana* 1959
- 186 *Beauveria bassiana* 1960
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- 19 *Paecilomyces* sp. 741
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- 192 *Nomuraea rileyi* 1972
- 194 *Metarhizium anisopliae* 2076
- 195 *Metarhizium anisopliae* 2077
- 196 *Paecilomyces amoenoroseus* 2078
- 198 *Beauveria bassiana* 2079
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A-24 *Metarhizium anisopliae* 1045
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- 447 *Beauveria bassiana* 2722
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- MI21 *Culicinomyces clavisporus* 2478
- MI26 *Culicinomyces clavisporus* 2622
- MI4 *Culicinomyces clavisporus* 2472
- MI5 *Culicinomyces clavisporus* 2473
- MI7 *Culicinomyces clavisporus* 2474
- MILLAA1 *Lagenidium giganteum* 2531
- MILLAA2 *Lagenidium giganteum* 2532
- MILLAA3 *Lagenidium giganteum* 2533
- MM1 *Culicinomyces bisporalis* 1948
- MM2 *Culicinomyces bisporalis* 1949
- QI1 *Culicinomyces clavisporus* 2480
- QI2 *Culicinomyces clavisporus* 2481
- VI1 *Culicinomyces clavisporus* 2479

Gagen, Steven J.

- 1 *Metarhizium anisopliae* 435
- 10 *Metarhizium anisopliae* 444
- 11 *Metarhizium anisopliae* 445
- 12 *Metarhizium anisopliae* 446
- 2 *Metarhizium anisopliae* 436
- 3 *Metarhizium anisopliae* 437
- 4 *Metarhizium anisopliae* 438
- 5 *Metarhizium anisopliae* 439
- 6 *Metarhizium anisopliae* 440
- 7 *Metarhizium anisopliae* 441
- 8 *Metarhizium anisopliae* 442
- 9 *Metarhizium anisopliae* 443

Gassen, Dirceu Neri

- D86 *Nomuraea rileyi* 2206
- E86 *Nomuraea rileyi* 2207

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- 112-82 *Paecilomyces farinosus* 975
- 12-74 *Verticillium lecanii* 980
- 13-74 *Verticillium lecanii* 1026
- 130-82 *Tolypocladium cylindrosporum* 1027
- 131-82 *Tolypocladium cylindrosporum* 976
- 132-82 *Tolypocladium cylindrosporum* 1028
- 134-82 *Metarhizium anisopliae* 977
- 148-82 *Metarhizium anisopliae* var. *major* 978
- 20-79 *Verticillium lecanii* 1033
- 45-81 *Hirsutella* sp. 970
- 50-81 *Paecilomyces* sp. 971
- 52-81 *Paecilomyces farinosus* 981
- 55-81 *Verticillium lecanii* 972
- 59-81 *Verticillium lecanii* 973
- 64-82 *Beauveria brongniartii* 979
- 67-82 *Aschersonia turbinata* 1030
- 8-73 *Verticillium lecanii* 1029
- 80-82 *Verticillium lecanii* 1032
- 93-82a *Verticillium lecanii* 974

Goettel, Mark S.

- 17 *Conidiobolus* sp. 3402
- 25B *Culicinomyces clavisporus* 2482
- 25B *Culicinomyces clavisporus* 1260
- 2B-A *Fusarium acuminatum* 3218
- 3B *Aspergillus niger* 3143
- 4B-A *Paecilomyces marquandii* 3047
- 4B-B *Paecilomyces marquandii* 3049
- 4C *Fusarium* sp. 3051
- 5B *Aspergillus* sp. 3048
- FI-59 *Culicinomyces clavisporus* 964
- MISI *Beauveria bassiana* 3462
- T1 *Metarhizium anisopliae* 2602
- T10 *Metarhizium anisopliae* 2610
- T11 *Metarhizium anisopliae* 2612
- T2 *Metarhizium anisopliae* 2611
- T3 *Metarhizium anisopliae* 2603
- T4 *Metarhizium anisopliae* 2604
- T5 *Metarhizium anisopliae* 2605
- T6 *Metarhizium anisopliae* 2606
- T7 *Metarhizium anisopliae* 2607
- T8 *Metarhizium anisopliae* 2608
- T9 *Metarhizium anisopliae* 2609

Gopalakrishnan, C.

- 30 *Verticillium lecanii* 2659
- 31 *Beauveria brongniartii* 2660

Gutierrez Samperio, Jorge

- 1 *Beauveria bassiana* 3285
- 10 *Metarhizium anisopliae* var. *anisopliae* 3294
- 11 *Metarhizium anisopliae* var. *anisopliae* 3295
- 12 *Fusarium* sp. 3296
- 13 *Metarhizium anisopliae* var. *anisopliae* 3297
- 14 Unidentified 3298
- 15 Unidentified 3299
- 16 *Fusarium* sp. 3300
- 17 *Nomuraea rileyi* 3301
- 18 *Paecilomyces fumosoroseus* 3302

- 19 *Paecilomyces javanicus* 3303
- 2 *Beauveria bassiana* 3286
- 20 Unidentified 3304
- 21 *Metarhizium anisopliae* var. *anisopliae* 3305
- 22 *Metarhizium anisopliae* var. *anisopliae* 3306
- 23 *Metarhizium anisopliae* var. *anisopliae* 3307
- 24 *Metarhizium anisopliae* var. *anisopliae* 3308
- 25 *Beauveria bassiana* 3309
- 26 *Beauveria bassiana* 3310
- 27 *Beauveria bassiana* 3311
- 28 *Beauveria bassiana* 3312
- 29 *Paecilomyces fumosoroseus* 3313
- 3 *Beauveria bassiana* 3287
- 4 *Beauveria bassiana* 3288
- 5 *Beauveria* sp. 3289
- 6 *Metarhizium anisopliae* var. *anisopliae* 3290
- 7 *Metarhizium anisopliae* var. *anisopliae* 3291
- 8 *Metarhizium anisopliae* var. *anisopliae* 3292
- 9 *Metarhizium anisopliae* var. *anisopliae* 3293

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- 190 *Conidiobolus bangalorensis* 449

Hajek, Ann E.

- 1 *Paecilomyces farinosus* 3664
- 102a *Paecilomyces farinosus* 3520
- 11 *Fusarium polyphialidicum* 3695
- 114 *Fusarium polyphialidicum* 3692
- 128b *Paecilomyces farinosus* 3521
- 130 *Verticillium lecanii* 3600
- 140a *Paecilomyces farinosus* 3522
- 145b *Paecilomyces farinosus* 3523
- 146 *Paecilomyces farinosus* 3596
- 149 *Paecilomyces farinosus* 3597
- 166a *Paecilomyces farinosus* 3524
- 167a *Fusarium* sp. 3532
- 18 *Beauveria bassiana* 3405
- 18b *Paecilomyces farinosus* 3493
- 1b *Paecilomyces farinosus* 3490
- 203b *Paecilomyces farinosus* 3525
- 216b *Paecilomyces farinosus* 3526
- 21a *Paecilomyces farinosus* 3494
- 220b *Beauveria bassiana* 3530
- 23 *Paecilomyces farinosus* 3665
- 24 *Beauveria bassiana* 3404
- 26 *Fusarium polyphialidicum* 3696
- 26a *Paecilomyces farinosus* 3495
- 27 *Paecilomyces farinosus* 3666
- 298b *Paecilomyces farinosus* 3533
- 325 *Fusarium polyphialidicum* 3694
- 325 *Fusarium polyphialidicum* 3693
- 32c *Paecilomyces farinosus* 3496
- 35 *Paecilomyces farinosus* 3595
- 363 *Verticillium lecanii* 3601
- 36a *Paecilomyces farinosus* 3497
- 370 *Paecilomyces farinosus* 3598
- 37c *Paecilomyces farinosus* 3498
- 438 *Paecilomyces farinosus* 3599
- 47b *Paecilomyces farinosus* 3500

49b *Paecilomyces farinosus* 3501
4a *Paecilomyces farinosus* 3491
52b *Paecilomyces farinosus* 3502
53a *Paecilomyces farinosus* 3503
54b *Paecilomyces farinosus* 3504
57b *Paecilomyces farinosus* 3505
58a *Beauveria bassiana* 3527
61c *Beauveria bassiana* 3528
62a *Paecilomyces farinosus* 3506
64a *Paecilomyces farinosus* 3507
68c *Paecilomyces farinosus* 3508
73a *Beauveria bassiana* 3529
91a *Paecilomyces farinosus* 3517
93a *Verticillium* sp. 3531
94b *Paecilomyces farinosus* 3518
95a *Paecilomyces farinosus* 3519
9b *Paecilomyces farinosus* 3492
BFMS *Beauveria bassiana* 3667
CTIV-3 *Entomophaga maimaiga* 2775
E.M.F. #3 *Fusarium polyphialidicum* 3694
L1 *Entomophaga maimaiga* 3052
L3 *Entomophaga maimaiga* 3053
Red b (40) *Paecilomyces farinosus* 3499

Hanula, James

C-1 Unidentified 3715
C-2 *Beauveria bassiana* 3716
C-3 *Beauveria bassiana* 3717
C-4 *Cordyceps* sp. 3718
C-5 Unidentified 3714
C-5 *Metarhizium anisopliae* 3713
W-2 Unidentified 3719

Henry, John E.

118 *Sorospora* sp. 377

Hernández Ramírez, Juan

1 Unidentified 3535
2 Unidentified 3536

Ho, T.

Sol-1 *Metarhizium flavoviride* var. minus 1773
Sol-11 *Metarhizium flavoviride* var. minus 1772
Sol-14 *Metarhizium flavoviride* var. minus 1769
Sol-17 *Metarhizium flavoviride* var. minus 1767
Sol-28 *Metarhizium flavoviride* var. minus 1765
Sol-3 *Metarhizium flavoviride* var. minus 1764
Sol-30 *Metarhizium flavoviride* var. minus 1770
Sol-31 *Metarhizium flavoviride* var. minus 1763
Sol-4 *Metarhizium flavoviride* var. minus 1771
Sol-5 *Metarhizium flavoviride* var. minus 1766
Sol-7 *Metarhizium flavoviride* var. minus 1768

Hodge, Kathie T.

10 *Monacrosporium ellipsosporum* 3723

Holdom, David G.

020286 *Pandora delphacis* 2095
030386-1 *Verticillium lecanii* 2149
030386-2 *Verticillium lecanii* 2150
050187-1 *Hirsutella citriformis* 2420
050187-5 *Metarhizium anisopliae* 2421
060286 *Pandora delphacis* 2096
080287-1 *Metarhizium anisopliae* var. *anisopliae* 2424
080287-2 *Paecilomyces fumosoroseus* 2425
080287-3 *Hirsutella citriformis* 2426
10 *Hirsutella citriformis* 1917
100286-2 *Pandora* nr. *delphacis* 2146
100286-3 *Metarhizium anisopliae* var. *anisopliae* 2106
100287-2a *Beauveria bassiana* 2427
11 *Hirsutella citriformis* 1918
12 *Hirsutella citriformis* 1919
130286 *Erynia* sp. 2097
130286-3 *Metarhizium anisopliae* var. *anisopliae* 2105
130287-2 *Zoophthora radicans* 2411
170287-1 *Hirsutella citriformis* 2428
180186 *Fusarium coccophilum* 2098
180286 *Pandora* nr. *delphacis* 2132
2 *Conidiobolus coronatus* 1876
200186-2 *Pandora delphacis* 2091
220287 *Paecilomyces fumosoroseus* 2429
260186-1 *Pandora delphacis* 2092
260186-2 *Pandora delphacis* 2093
270186 *Pandora delphacis* 2094
280186-1 *Hirsutella citriformis* 2099
280186-2 *Hirsutella citriformis* 2100
280186-3 *Hirsutella citriformis* 2101
280186-4 *Hirsutella citriformis* 2102
280186-5 *Hirsutella citriformis* 2103
300187 *Zoophthora radicans* 2410
310187-1 *Pandora delphacis* 2409
310187-4 *Hirsutella citriformis* 2422
310187-5 *Hirsutella citriformis* 2423
UQE-15 *Entomophthora chromaphidis* 1862
UQE-2-2 *Entomophthora chromaphidis* 1860
UQE-21 *Entomophthora chromaphidis* 1863

Humber, Richard A.

Fus.Wal *Fusarium* sp. 1828

Hung-Kei, Li

A *Beauveria bassiana* 708
E *Beauveria bassiana* 709

Hural, Kirsten

Au-1 *Pandora neoaphidis* 2762
Au-10 *Pandora neoaphidis* 2766
Au-11 *Pandora neoaphidis* 2768
Au-14 *Pandora neoaphidis* 2767
Au-15 *Pandora neoaphidis* 2757
Au-17 *Pandora neoaphidis* 2784
Au-20 *Pandora neoaphidis* 2781
Au-21 *Pandora neoaphidis* 2769
Au-24 *Pandora neoaphidis* 2848
Au-26 *Pandora neoaphidis* 2838
Au-27 *Pandora neoaphidis* 2839

Au-28 *Pandora neoaphidis* 2837
Au-29 *Pandora neoaphidis* 2847
Au-30 *Pandora neoaphidis* 2855
Au-4 *Pandora neoaphidis* 2854
Au-6 *Pandora neoaphidis* 2761
Au-7 *Pandora neoaphidis* 2754
Au-8 *Pandora neoaphidis* 2760
EW-5 *Pandora neoaphidis* 2868
Fe-2 *Pandora neoaphidis* 2782
FR-1 *Pandora neoaphidis* 2852
FR-10 *Pandora neoaphidis* 2851
FR-12 *Pandora neoaphidis* 2763
FR-14 *Pandora neoaphidis* 2755
FR-16 *Pandora neoaphidis* 2840
FR-17 *Zoophthora occidentalis* 2841
FR-18 *Pandora neoaphidis* 2842
FR-19 *Pandora neoaphidis* 2844
FR-20 *Pandora neoaphidis* 2845
FR-21 *Pandora neoaphidis* 2846
FR-22 *Pandora neoaphidis* 2853
FR-23 *Pandora neoaphidis* 2865
FR-24 *Pandora neoaphidis* 2866
FR-25 *Pandora neoaphidis* 2867
FR-26 *Pandora neoaphidis* 2872
FR-4 *Pandora neoaphidis* 2773
FR-7 *Pandora neoaphidis* 2758
FR-8 *Pandora neoaphidis* 2870
GF-2 *Conidiobolus obscurus* 3130
GF-3 *Conidiobolus obscurus* 3131
GF-4 *Conidiobolus obscurus* 3132
GF-5 *Conidiobolus obscurus* 3133
GF-6 *Conidiobolus obscurus* 3134
GF-7 *Conidiobolus obscurus* 3135
HG72011 *Pandora neoaphidis* 2591
HG72012 *Pandora neoaphidis* 2592
HG72013 *Pandora neoaphidis* 2593
HG72014 *Pandora neoaphidis* 2594
HG7202 *Pandora neoaphidis* 2583
HG7203 *Pandora neoaphidis* 2584
HG7204 *Pandora neoaphidis* 2585
HG7207 *Pandora neoaphidis* 2587
HG7208 *Pandora neoaphidis* 2588
HG7209 *Pandora neoaphidis* 2589
Hoff-1 *Conidiobolus thromboides* 3136
Hoff-2 *Conidiobolus obscurus* 3137
Hoff-3 *Conidiobolus obscurus* 3138
Hoff-4 *Conidiobolus obscurus* 3139
Hoff-5 *Conidiobolus obscurus* 3140
Hoff-6 *Conidiobolus obscurus* 3141
Ma-1 *Pandora neoaphidis* 2756
Ma-2 *Pandora neoaphidis* 2783
MP-2 *Pandora neoaphidis* 2856
MP-5 *Pandora neoaphidis* 2873

Hywel-Jones, Nigel

H84178-2 *Erynia conica* 1439

IIBC

I88-377 *Metarhizium flavoviride* 3391

IMI

- 113863 *Metarhizium anisopliae* 2042
118284 *Conidiobolus bangalorensis* 449
12942 *Beauveria bassiana* 2454
14746 *Metarhizium anisopliae* 2107
152222 *Metarhizium anisopliae* 3603
168777ii *Metarhizium anisopliae* var.
anisopliae 3127
170146 *Metarhizium flavoviride* 2133
170289 *Metarhizium anisopliae* 1278
211910 *Pandora blunckii* 217
214110 *Nomuraea anemonoides* 2467
232971 *Sporodiniella umbellata* 2895
280342 *Culicinomyces clavisporus* 964
298059 *Metarhizium anisopliae* 3604
299982 *Metarhizium anisopliae* 3621
300150 *Metarhizium album* 2082
307969 *Hirsutella* sp. 2799
324673 *Metarhizium flavoviride* 3391
327906 *Beauveria bassiana* 2693
327908 *Beauveria bassiana* 2685
327909 *Beauveria bassiana* 2686
327910 *Beauveria bassiana* 2688
328059 *Beauveria bassiana* 2694
329064 *Beauveria bassiana* 2689
329065 *Beauveria bassiana* 2690
329066 *Beauveria bassiana* 2691
329067 *Beauveria bassiana* 2692
330189 *Metarhizium flavoviride* var.
minus 3341
330194 *Beauveria bassiana* 2687
330803 *Fusarium moniliforme* var. *intermedium* 3223
331275 *Beauveria bassiana* 3622
331276 *Verticillium lecanii* 2930
I90-574 *Metarhizium anisopliae* 3605
I91-609 *Metarhizium flavoviride* 3606
I91-612 *Beauveria bassiana* 3607
I91-613 *Metarhizium anisopliae* 2575
I91-613 *Metarhizium anisopliae* 3608
I91-614 *Metarhizium anisopliae* 3609
I91-625 *Metarhizium anisopliae* 3610
I91-633 *Metarhizium anisopliae* 3611
I91-646 *Metarhizium* sp. 3612
I91-647 *Metarhizium* sp. 3613
I91-671 *Metarhizium* sp. 3614
I91-672 *Metarhizium* sp. 3615
I91-673 *Metarhizium* sp. 3616
I91-674 *Metarhizium* sp. 3617
I91-675 *Metarhizium* sp. 3618
I91-676 *Metarhizium anisopliae* 3619
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- 51 *Paecilomyces fumosoroseus* 887
Bb-142 *Beauveria bassiana* 1185
Bb-169 *Beauveria bassiana* 1491
Bb-195 *Beauveria bassiana* 1186
Ma-127 *Metarhizium anisopliae* 1490
Ma-139 *Metarhizium anisopliae* 1489
Ma-152 *Metarhizium anisopliae* var.
anisopliae 3147
Ma-181 *Metarhizium anisopliae* var.
anisopliae 3148
Ma-23 *Metarhizium anisopliae* 1187
Ma-51 *Metarhizium anisopliae* var. *majus*
3145

- Ma-70 *Metarhizium anisopliae* var.
anisopliae 3146
Mf-88 *Metarhizium flavoviride* 1184
Mf-88 *Metarhizium flavoviride* 2024
Pf-46 *Paecilomyces farinosus* 1225

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- 1027 *Conidiobolus pseudapiculatus* 1665
1066 *Pandora nouri* 366
1116 *Zoophthora phalloides* 351
1118 *Zoophthora radicans* 379
19 *Conidiobolus thomboides* 120
20 *Conidiobolus obscurus* 121
21 *Conidiobolus obscurus* 122
27 *Zoophthora radicans* 126
4 *Conidiobolus thomboides* 70
421 *Zoophthora radicans* 822
52 *Pandora neoaphidis* 128
54 *Conidiobolus obscurus* 124
542 *Conidiobolus obscurus* 133
542 *Conidiobolus obscurus* 355
542 (=ARSEFs 133 & 355) *Conidiobolus*
obscurus 434
602 *Conidiobolus obscurus* 67
624 *Zoophthora radicans* 68
66 *Conidiobolus obscurus* 125
698 *Conidiobolus pseudapiculatus* 1662
722 *Conidiobolus obscurus* 434
844 *Zoophthora radicans* 370
844 *Zoophthora radicans* 359
844 *Zoophthora radicans* 823
877 *Conidiobolus pseudapiculatus* 1664
951.72 *Conidiobolus coronatus* 206

Ippolito, L.

- 38-BI *Tolypocladium niveum* 3394

IRRI

- 10A *Hirsutella citriformis* 1063
10B *Hirsutella citriformis* 1062
1A *Hirsutella citriformis* 1243
1B *Hirsutella citriformis* 1244
1C *Hirsutella citriformis* 1245
2D *Hirsutella citriformis* 1246
2H *Hirsutella citriformis* 1247
2I *Hirsutella citriformis* 1248
2J *Hirsutella citriformis* 1249
3C(2) *Hirsutella citriformis* 1251
3D *Hirsutella citriformis* 1250
3F *Hirsutella citriformis* 1252
3G *Hirsutella citriformis* 1253
4A *Hirsutella* sp. 1096
4A *Hirsutella citriformis* 1256
4B *Hirsutella citriformis* 1255
4B(a) *Hirsutella citriformis* 1254
4C *Hirsutella citriformis* 1257
5B *Hirsutella citriformis* 1258
5C *Hirsutella citriformis* 1259
GA *Hirsutella citriformis* 1064
O2III *Beauveria bassiana* 1270
Pal. 2 *Beauveria bassiana* 1269

Jaffee, Bruce A.

- A01 *Arthrobotrys oligospora* 3347
Ad3 *Arthrobotrys dactyloides* 2934
Ca2 *Catenaria anguillulae* 2015
CR106 *Arthrobotrys dactyloides* 3733
G20 *Monacrosporium cionopagum* 3349
H59 *Hirsutella thompsonii* 2800
H69 *Hirsutella* sp. 2803
Hr31 *Hirsutella rhossiliensis* 2006
Hr42 *Hirsutella rhossiliensis* 2007
HR43 *Hirsutella rhossiliensis* 2008
Hr58 *Hirsutella* sp. 2799
Hr63 *Hirsutella* sp. 2801
Hr65 *Hirsutella* sp. 2802
Hr72 *Hirsutella rhossiliensis* 2788
Hr73 *Hirsutella rhossiliensis* 2789
Hr74 *Hirsutella rhossiliensis* 2790
Hr75 *Hirsutella rhossiliensis* 2791
Hr76 *Hirsutella rhossiliensis* 2792
Hr77 *Hirsutella rhossiliensis* 2793
Hr78 *Hirsutella rhossiliensis* 2794
Hr79a *Hirsutella* sp. 2795
Hr79b *Hirsutella* sp. 2796
Hr79c *Hirsutella* sp. 2797
Hr79d *Hirsutella* sp. 2798
Hr80 *Hirsutella rhossiliensis* 2931
Hr81 *Hirsutella rhossiliensis* 2932
Hr82 *Hirsutella rhossiliensis* 2933
Lag3 *Aphanomyces* sp. 2005
LcD *Lagenidium caudatum* 2003
M-19 *Drechmeria coniospora* 3346
MK100a *Monacrosporium ellipso sporum*
3731
MN101 *Arthrobotrys musiformis* 3730
MN103 *Arthrobotrys oligospora* 3732
WPG *Leptogorgia* sp. 2004

John, Padmore

- 74☺ *Arthrobotrys dactyloides* 3373
Ar2 *Arthrobotrys oligospora* var. *oligo-*
spora 3370
Ar□ *Arthrobotrys oligospora* var. *oligo-*
spora 3369
Rh2 *Arthrobotrys dactyloides* 3372
Rh△ *Arthrobotrys dactyloides* 3371

Jones, Wendy E.

- 499v2 *Beauveria bassiana* 3041
FLS *Metarhizium anisopliae* 3043
FST *Metarhizium anisopliae* 3045
Hara *Beauveria bassiana* 3042
SHB *Beauveria bassiana* 3040
WSP *Metarhizium anisopliae* 3044

Kawakami, K.

- 621 *Metarhizium anisopliae* var. *majus*
1092
773 *Metarhizium anisopliae* var. *majus*
1093

Keller, Siegfried

- 100 *Erynia ovispora* 399
102 *Erynia ovispora* 400
114 *Entomophaga aulicae* 393
115 *Zoophthora lanceolata* 469
117 *Beauveria brongniartii* 1067
118 *Beauveria brongniartii* 1068
119 *Beauveria brongniartii* 1069
120 *Beauveria brongniartii* 1070
125 *Beauveria brongniartii* 1071
126 *Beauveria brongniartii* 1072
131 *Beauveria brongniartii* 1076
134 *Beauveria brongniartii* 1077
165 *Beauveria brongniartii* 1871
166 *Beauveria brongniartii* 1872
167 *Beauveria brongniartii* 1873
168 *Beauveria brongniartii* 1874
169 *Beauveria brongniartii* 1875
21 *Conidiobolus* sp. 391
214 *Zoophthora radicans* 388
217 *Zoophthora radicans* 389
24 *Furia virescens* 394
250 *Furia virescens* 427
251 *Furia virescens* 470
35 *Batkoa apiculata* 395
36 *Batkoa gigantea* 403
39 *Entomophthora muscae* 392
41 *Eryniopsis caroliniana* 641
411 *Zoophthora anglica* 916
412 *Zoophthora anglica* 926
416 *Furia virescens* 1129
425 *Pandora blunckii* 917
426 *Pandora blunckii* 915
430 *Pandora blunckii* 920
44 *Metarhizium anisopliae* 1373
444 *Zoophthora radicans* 1130
445 *Zoophthora radicans* 914
449 *Batkoa apiculata* 1660
449 *Batkoa apiculata* 927
45 *Metarhizium anisopliae* 1374
450 *Batkoa apiculata* 1661
450 *Batkoa apiculata* 919
46 *Metarhizium anisopliae* 1375
47 *Metarhizium anisopliae* 1376
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- Bartow A *Leptogorgia chapmanii* 2680
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- 61 *Paecilomyces farinosus* 1507
- 70 *Verticillium lecanii* 1505
- 71 *Pandora neoaphidis* 3410
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- 75 *Beauveria bassiana* 1511
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- A-1 *Metarhizium anisopliae* var. *anisopliae* 3329

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- Fla. 68 *Hirsutella thompsonii* 137

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- 85-1(1pass) *Zoophthora radicans* 1938
- A *Zoophthora radicans* 1018
- B *Zoophthora radicans* 1019
- C *Zoophthora radicans* 1261
- D *Zoophthora radicans* 1020
- E *Zoophthora radicans* 1262
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- Emb-1 *Entomophaga aulicae* 1751

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- 1 *Fusarium* sp. 2302
- 12 *Fusarium solani* 2311
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- PNG 12713 *Aspergillus flavus* 2157
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- 15 *Nomuraea* sp. 2413
- 16 *Verticillium* sp. 2414
- 6 *Fusarium* sp. 2232
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- 30 Unidentified 3725
- 31 Unidentified 3727
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- Bb-T11 *Beauveria bassiana* 2457
- Ht-R *Hirsutella thompsonii* 2459
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- Nr-IY3 *Nomuraea rileyi* 2465
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- VL-T9 *Verticillium lecanii* 2460

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- MIT1 *Beauveria bassiana* 338

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- 460(88) *Metarhizium anisopliae* 1891
- CG-6 *Metarhizium anisopliae* 1901

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- 1232 *Basidiobolus haptospora* 261
- 1944 *Metarhizium anisopliae* 2107
- 2780 *Conidiobolus thromboides* 15
- 2780 *Conidiobolus thromboides* 115
- 2780 *Conidiobolus thromboides* 208
- 3682 *Conidiobolus bangalorensis* 449
- A-27471 *Penicillium thomii* 2056
- A-27472 *Verticillium coccosporum* 2064
- A-27473 *Paecilomyces farinosus* 2057
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- UK-3(1) *Beauveria bassiana* 2236
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- 20 Unidentified 3413
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- 25 *Verticillium psalliotiae* 3416
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- CIP-849 *Paecilomyces viridis* 2456

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- 1602 *Tolypocladium niveum* 3321

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- 38-131 *Paecilomyces farinosus* 1851

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- A86 *Nomuraea rileyi* 2203

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- FRR 1665 *Nomuraea anemonoides* 2467

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- 001A *Trichothecium roseum* 1226
- 002 *Beauveria* sp. 1196
- 004 *Beauveria* sp. 1197
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- 0102A *Beauveria bassiana* 1512
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 0154 *Beauveria bassiana* 1800
 0155 *Beauveria bassiana* 1801
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 0157 *Beauveria bassiana* 1803
 0158A *Beauveria bassiana* 1804
 0158B *Beauveria bassiana* 1805
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 0169 *Beauveria bassiana* 1865
 0170 *Beauveria bassiana* 1866
 0171 *Paecilomyces fumosoroseus* 1867
 0172 *Paecilomyces fumosoroseus* 1868
 0175 *Beauveria bassiana* 1988
 0176 *Beauveria bassiana* 1973
 0177 *Beauveria bassiana* 1974
 0178 *Beauveria bassiana* 1975
 0179 *Beauveria bassiana* 1976
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0181 *Beauveria bassiana* 1978
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 0183 *Beauveria bassiana* 1980
 0184 *Pandora neoaphidis* 1981
 0185 *Beauveria bassiana* 1982
 0187 *Beauveria bassiana* 1984
 0188 *Pandora neoaphidis* 1985
 0189 *Pandora neoaphidis* 1986
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 0191 *Pandora neoaphidis* 2085
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 049 *Beauveria* sp. 1215
 050 *Beauveria* sp. 1216
 050A *Trichothecium* sp. 1217
 051 *Beauveria* sp. 1218
 052 *Beauveria* sp. 1219
 057 *Beauveria* sp. 1220
 059 *Beauveria* sp. 1221
 060 *Beauveria* sp. 1222
 060A *Trichothecium* sp. 1223
 061 *Beauveria* sp. 1224
 070 *Beauveria bassiana* 1164
 070A *Beauveria bassiana* 1314
 070B *Beauveria bassiana* 1315
 070C *Beauveria bassiana* 1316
 071 *Beauveria bassiana* 1394
 071A *Beauveria bassiana* 1163
 072 *Beauveria bassiana* 1154
 073 *Beauveria bassiana* 1155
 074 *Beauveria bassiana* 1153
 074A *Beauveria bassiana* 1317
 074B *Beauveria bassiana* 1318
 075 *Beauveria bassiana* 1395
 076 *Beauveria bassiana* 1319
 077A *Beauveria bassiana* 1396
 077B *Beauveria bassiana* 1397
 078 *Beauveria bassiana* 1320
 079B *Beauveria bassiana* 1321
 079C *Beauveria bassiana* 1322
 079D *Beauveria bassiana* 1323
 079E *Beauveria bassiana* 1324
 079F *Beauveria bassiana* 1325
 080 *Beauveria bassiana* 1326
 082 *Beauveria* sp. 1327
 083 *Acremonium furcatum* 1372
 084 *Verticillium lecanii* 1328
 085 *Aphanocladium album* 1329

086 *Beauveria bassiana* 1398
 087 *Beauveria bassiana* 1399
 088 *Beauveria bassiana* 1389
 089 *Verticillium* sp. 1401
 090 *Verticillium* sp. 1402
 091 *Verticillium* sp. 1403
 092A *Beauveria bassiana* 1404
 092B *Beauveria bassiana* 1405
 093A *Beauveria bassiana* 1406
 093B *Beauveria bassiana* 1407
 094A *Beauveria bassiana* 1408
 094B *Beauveria bassiana* 1409
 095 *Beauveria bassiana* 1410
 096A *Beauveria bassiana* 1411
 096B *Beauveria bassiana* 1412
 097 *Beauveria bassiana* 1413
 099 *Beauveria bassiana* 1414
 10 *Paecilomyces farinosus* 3580
 13 *Fusarium* sp. 3678
 15 *Fusarium* sp. 3679
 19 *Fusarium* sp. 3672
 2 *Fusarium* sp. 3676
 2 *Paecilomyces farinosus* 3572
 21 *Paecilomyces farinosus* 3590
 22 *Paecilomyces farinosus* 3591
 23 *Paecilomyces farinosus* 3592
 24 *Paecilomyces farinosus* 3593
 25 *Paecilomyces farinosus* 3594
 2A *Fusarium* sp. 3677
 3 *Paecilomyces farinosus* 3573
 32 *Fusarium* sp. 3673
 38 *Fusarium* sp. 3668
 4 *Paecilomyces farinosus* 3574
 40 *Paecilomyces farinosus* 3658
 41 *Paecilomyces farinosus* 3659
 43 *Paecilomyces farinosus* 3660
 44 *Paecilomyces farinosus* 3661
 45 *Paecilomyces farinosus* 3662
 48 *Paecilomyces farinosus* 3663
 5 *Fusarium* sp. 3670
 5 *Paecilomyces farinosus* 3575
 50 *Fusarium* sp. 3674
 5A *Fusarium* sp. 3675
 6 *Paecilomyces farinosus* 3576
 60 *Fusarium* sp. 3669
 645 *Beauveria bassiana* 1191
 646 *Beauveria bassiana* 1192
 647 *Beauveria bassiana* 1193
 648 *Beauveria bassiana* 1194
 7 *Fusarium* sp. 3671
 7 *Paecilomyces farinosus* 3577
 8 *Paecilomyces farinosus* 3578
 83-05 *Beauveria bassiana* 1151
 83-06 *Fusarium solani* 1148
 83-11 *Fusarium oxysporum* 1371
 83-15 *Aspergillus* sp. 1152
 83-37 *Beauveria bassiana* 1150
 83-48 *Beauveria bassiana* 1073
 83-49 *Beauveria bassiana* 1074
 83-54 *Beauveria bassiana* 1075
 83-611 *Beauveria bassiana* 1306
 83-614 *Beauveria bassiana* 1160
 83-615 *Beauveria bassiana* 1159
 83-616 *Beauveria bassiana* 1182
 83-619 *Beauveria bassiana* 1157
 83-621 *Beauveria bassiana* 1165

83-623 *Beauveria bassiana* 1162
83-626 *Beauveria bassiana* 1161
83-634 *Beauveria bassiana* 1158
83-639 *Beauveria bassiana* 1156
83-701 *Beauveria bassiana* 1167
83-702 *Beauveria bassiana* 1168
83-703 *Beauveria bassiana* 1169
83-704 *Beauveria bassiana* 1170
83-77 *Beauveria bassiana* 1166
83-79 *Beauveria bassiana* 1149
8617 *Entomophthora muscae* 2263
8619 *Entomophthora muscae* 2264
8622 *Entomophthora muscae* 2265
8624 *Entomophthora muscae* 2266
8627 *Fusarium* sp. 2252
8628 *Scopulariopsis* sp. 2255
8629 *Beauveria bassiana* 2253
8630 *Beauveria bassiana* 2254
8631 *Zoophthora radicans* 2256
8633 *Zoophthora radicans* 2257
8634 *Zoophthora radicans* 2258
8635 *Zoophthora radicans* 2259
8636 *Zoophthora radicans* 2260
8637 *Zoophthora radicans* 2261
8639 *Zoophthora radicans* 2262
8640 *Entomophthora muscae* 2317
8642 *Beauveria bassiana* 2318
8643 *Beauveria bassiana* 2319
8644 *Beauveria bassiana* 2320
8645 *Beauveria bassiana* 2321
8646 *Beauveria bassiana* 2322
8647 *Verticillium* sp. 2323
8648 *Verticillium* sp. 2324
8649 *Verticillium* sp. 2325
8650 *Verticillium* sp. 2326
8651 *Scopulariopsis* sp. 2327
8652 *Scopulariopsis* sp. 2328
8654 *Verticillium* sp. 2329
8701 *Beauveria bassiana* 2457
8702 *Beauveria bassiana* 2458
8703 *Hirsutella thompsonii* 2459
8704 *Hirsutella thompsonii* 2464
8705 *Verticillium lecanii* 2460
8706 *Beauveria bassiana* 2461
8707 *Beauveria bassiana* 2462
8708 *Nomuraea rileyi* 2465
8709 *Nomuraea rileyi* 2466
8710 *Beauveria bassiana* 2463
8809A *Beauveria bassiana* 3153
8809B *Beauveria bassiana* 3154
8809C *Beauveria bassiana* 3155
8809D *Beauveria bassiana* 3156
8809E *Beauveria bassiana* 3157
8809G *Beauveria bassiana* 3158
88100 *Zoophthora radicans* 2704
88102 *Zoophthora radicans* 2697
88103 *Zoophthora radicans* 2705
88107 *Zoophthora radicans* 2707
88108 *Zoophthora radicans* 2711
88111 *Zoophthora radicans* 2698
88113 *Zoophthora radicans* 2699
88116 *Zoophthora radicans* 2712
88121 *Zoophthora radicans* 2710
88129 *Zoophthora radicans* 2714
8812B *Zoophthora radicans* 3159
8812C *Zoophthora radicans* 3160

8812D *Zoophthora radicans* 3161
8812D *Zoophthora radicans* 2696
8817A *Zoophthora radicans* 3162
8817B *Zoophthora radicans* 3163
8817B *Zoophthora radicans* 2708
8818A *Zoophthora radicans* 3114
8818A *Zoophthora radicans* 2709
8819A *Zoophthora radicans* 3115
8819B *Zoophthora radicans* 3151
8820A *Zoophthora radicans* 3116
8820A *Zoophthora radicans* 2703
8823A *Zoophthora radicans* 3164
8823A *Zoophthora radicans* 2713
8824A *Zoophthora radicans* 3150
8824B *Zoophthora radicans* 3117
8824B *Zoophthora radicans* 2702
8825A *Zoophthora radicans* 3149
8825A *Zoophthora radicans* 2706
8825B *Zoophthora radicans* 3118
8826 *Zoophthora radicans* 3119
8826 *Zoophthora radicans* 2701
8830A *Zoophthora radicans* 3165
8835A *Beauveria bassiana* 3166
8835B *Beauveria bassiana* 3167
8835C *Beauveria bassiana* 3168
8835D *Beauveria bassiana* 3169
8842A *Zoophthora radicans* 3170
8843A *Zoophthora radicans* 3171
8843A *Zoophthora radicans* 2700
8843B *Zoophthora radicans* 3172
8851 *Beauveria bassiana* 3120
8852 *Beauveria bassiana* 3121
8854 (first form) Unidentified 3122
8854 (second form) *Beauveria bassiana* 3215
9 *Paecilomyces farinosus* 3579
9009 Unidentified 3125
9014 *Pandora neoaphidis* 3126
9015 *Pandora neoaphidis* 3174
9016 *Pandora neoaphidis* 3175
A1 *Beauveria bassiana* 1189
A10 *Beauveria bassiana* 1311
A11 *Beauveria bassiana* 1312
A12 *Beauveria bassiana* 1313
A2 *Beauveria bassiana* 1171
A3 *Beauveria bassiana* 1190
A4 *Beauveria bassiana* 1172
A5 *Beauveria bassiana* 1173
A6 *Beauveria bassiana* 1174
A7 *Beauveria bassiana* 1175
A8 *Beauveria bassiana* 1309
A9 *Fusarium* sp. 1310
E1 *Beauveria bassiana* 1188
J1 *Beauveria bassiana* 1176
J2 *Beauveria bassiana* 1177
J3 *Beauveria bassiana* 1178
J4 *Beauveria bassiana* 1179
J5 *Beauveria bassiana* 1180
J6 *Beauveria bassiana* 1181
J7 *Beauveria bassiana* 1183

Postie, Lori

Reisolate 1 *Entomophaga macleodii* 3077
Reisolate 2 *Entomophaga macleodii* 3078
Reisolate 3 *Entomophaga macleodii* 3079

Prior, Christopher

Kenya 1 *Beauveria bassiana* 2685
Kenya 2 *Beauveria bassiana* 2686
Kenya 3 *Beauveria bassiana* 2687
Togo 1 *Beauveria bassiana* 2688
Togo 2 *Beauveria bassiana* 2689
Togo 3 *Beauveria bassiana* 2690
Togo 4 *Beauveria bassiana* 2691
Togo 5 *Beauveria bassiana* 2692

PSU

L-237 *Fusarium lateritium* 2304
M-3856 *Fusarium subglutinans* 2301
M-3959 *Fusarium nygamai* 2316
R-8540 *Fusarium semitectum* 2299
R-8541 *Fusarium semitectum* 2300
S-1145 *Fusarium solani* 2311
S-1146 *Fusarium solani* 2312
S-1147 *Fusarium solani* 2313
S-1148 *Fusarium solani* 2314

Puerto Rico

04-91 *Cladosporium cladosporioides* 3375

QEC

408.0 *Metarhizium anisopliae* 872
408.1 *Metarhizium anisopliae* 909
409.0 *Metarhizium anisopliae* var. *anisopliae* 925
410.0 *Metarhizium anisopliae* 455
411.0 *Metarhizium anisopliae* 456
412.0 *Metarhizium anisopliae* 457
413.0 *Metarhizium anisopliae* 485
414.0 *Metarhizium anisopliae* 486
415.0 *Metarhizium anisopliae* 487
416.0 *Metarhizium anisopliae* 488
417.0 *Metarhizium anisopliae* 489
418.0 *Metarhizium anisopliae* 549
419.0 *Metarhizium anisopliae* 550
420.0 *Metarhizium anisopliae* 551
421.0 *Metarhizium anisopliae* 907
422.1 *Metarhizium anisopliae* 921
423.0 *Metarhizium anisopliae* 910
424.0 *Metarhizium anisopliae* 911
425.0 *Metarhizium anisopliae* 912
426.0 *Metarhizium anisopliae* 913
427.0 *Metarhizium anisopliae* 576
429.0 *Metarhizium anisopliae* var. *majus* 473
431.0 *Metarhizium anisopliae* 588
432.0 *Metarhizium anisopliae* 589
433.0 *Metarhizium anisopliae* 683
434.0 *Metarhizium anisopliae* 1284
435.0 *Metarhizium anisopliae* 1285
436.0 *Metarhizium anisopliae* 1286
437.0 *Metarhizium anisopliae* 1290
438.0 *Metarhizium anisopliae* 1300
439.0 *Metarhizium anisopliae* 1304

QM

191 *Metarhizium anisopliae* 2107

Quintela, Ileani

- VL1 *Beauveria* sp. 3510
VL3 *Paecilomyces lilacinus* 3511
VL4 *Paecilomyces lilacinus* 3512
VL5 *Beauveria bassiana* 3513
VL6 *Beauveria bassiana* 3514
VL7 *Beauveria bassiana* 3515

Rajak, R.C.

- 49 *Metarhizium anisopliae* var. *anisopliae* 3210
ENT/10A *Fusarium* sp. 2595
ENT/12 *Metarhizium* sp. 2596
ENT/42 *Beauveria bassiana* 2597

Ramos, Mark E.

- Cape *Entomophaga praribuli* 3356
Mebi *Entomophaga praribuli* 3358
Mesa *Entomophaga praribuli* 3357

Remaudière, Georges

- 625 *Zoophthora radicans* 126

Riba, Guy

- C-37 *Gibellula* sp. 1669
NR-11 *Nomuraea rileyi* 1670
NR-5 *Nomuraea rileyi* 1671

Riethmacher, Guenter W.

- A1 Unidentified 2752
A3 *Aspergillus* sp. 2765
B10C *Beauveria bassiana* 2725
B10K Unidentified 2746
B10M *Paecilomyces farinosus* 2724
B11W *Paecilomyces fumosoroseus* 2733
B12p *Paecilomyces fumosoroseus* 2804
B13A *Beauveria bassiana* 2748
B13B *Paecilomyces farinosus* 2726
B13m *Metarhizium anisopliae* 2805
B14m *Metarhizium anisopliae* 2806
B15p *Paecilomyces farinosus* 2807
B16m *Metarhizium anisopliae* 2808
B17b *Metarhizium anisopliae* 2809
B18b *Verticillium* sp. 2810
B22 *Aspergillus* sp. 3176
B23 *Paecilomyces fumosoroseus* 3177
B31 Mixed culture 3178
B32 *Paecilomyces fumosoroseus* 3179
B34 *Metarhizium anisopliae* var. *anisopliae* 3180
B37a *Beauveria bassiana* 3181
B37b Mixed culture 3182
B38 *Paecilomyces farinosus* 3183
B39 *Paecilomyces farinosus* 3184
B4 Mixed culture 2738
B40 *Paecilomyces farinosus* 3185
B41 *Paecilomyces farinosus* 3186
B43a *Metarhizium anisopliae* var. *anisopliae* 3187
B43b *Paecilomyces fumosoroseus* 3188
B43c *Scopulariopsis* sp. 3189
B44a *Metarhizium anisopliae* var. *anisopliae* 3190
B44b *Paecilomyces farinosus* 3191
B45a *Paecilomyces amoenoroseus* 3192
B45b *Metarhizium anisopliae* var. *anisopliae* 3193

B47a *Metarhizium anisopliae* var. *anisopliae* 3194

B47b *Aspergillus* sp. 3195

B48 *Metarhizium anisopliae* var. *anisopliae* 3196

B4P Unidentified 2747

B4T8 *Metarhizium anisopliae* var. *anisopliae* 2742

B5Bs *Fusarium* sp. 2743

B5R9 *Paecilomyces fumosoroseus* 2744

B5T10 *Paecilomyces fumosoroseus* 2745

BB *Beauveria bassiana* 2739

Bet1 *Beauveria bassiana* 3197

Bet2 *Beauveria bassiana* 3198

Bet3 *Beauveria bassiana* 3199

BP *Beauveria bassiana* 2737

C1 *Conidiobolus coronatus* 2730

C2 *Conidiobolus firmipilleus* 2731

C3 *Conidiobolus* sp. 2771

C4 *Conidiobolus* sp. 2772

C4.1a *Conidiobolus* sp. 3208

C5 *Conidiobolus* sp. 2815

C6 *Conidiobolus* sp. 2816

E1 *Aspergillus* sp. 2817

E2 *Zoophthora radicans* 2893

E3 *Zoophthora radicans* 3204

E4 *Aspergillus flavus* 2818

E5 *Zoophthora radicans* 3205

E6 *Zoophthora radicans* 3206

E7 *Aspergillus* sp. 2820

E8 Unidentified 2821

EB1 *Beniowskia* sp. 2751

EB10 *Scopulariopsis* sp. 3203

EB2 *Zoophthora radicans* 2732

EB3 *Pandora blunckii* 3200

EB4 *Pandora blunckii* 2824

EB4 *Fusarium* sp. 2776

EB6 *Pandora blunckii* 3201

EB7 *Pandora blunckii* 3202

L1 *Beauveria bassiana* 2727

L2 *Beauveria bassiana* 2728

L3 *Beauveria bassiana* 2729

L4 *Paecilomyces fumosoroseus* 2749

M1 *Paecilomyces farinosus* 2734

Ma1 *Metarhizium anisopliae* 2735

Ma2 *Fusarium* sp. 2736

T11 *Metarhizium anisopliae* 2741

T6.1 Mixed culture 2740

Roberts, Donald W.

(i)I *Metarhizium flavoviride* var. *minus* 1288

020184-2A *Entomophaga* sp. 1126

040485-6 *Hirsutella citriformis* 1913

090485-3 *Nomuraea rileyi* 1879

100881-2 *Trichothecium* sp. 653

100981-1 *Pandora delphacis* 716

100981-3 *Pandora delphacis* 673

100981-4 *Pandora delphacis* 674

101081-1 *Pandora delphacis* 686

101081-2-3 *Pandora delphacis* 682

101081-3 *Pandora delphacis* 668

101081-4 *Pandora delphacis* 657

101081-5-3 *Pandora delphacis* 672

101081-6 *Paecilomyces* sp. 680

101081-6-2 *Pandora delphacis* 660

101081-6-2 *Pandora delphacis* 659

101181-4 *Fusarium* sp. 687

101381-1 *Pandora delphacis* 670

101481-4-1 *Beauveria brongniartii* 656

101481-5 *Beauveria brongniartii* 656

101981-1 *Beauveria bassiana* 652

102081-1 *Beauveria bassiana* 679

102081-2 *Beauveria bassiana* 654

102181-1 *Beauveria bassiana* 714

102181-1 *Pandora delphacis* 666

102181-12 *Zoophthora radicans* 685

102181-2 *Pandora delphacis* 669

102181-4 *Pandora delphacis* 713

102181-5 *Pandora delphacis* 676

102181-6 *Pandora delphacis* 667

102181-9 *Pandora delphacis* 665

102381-2 *Conidiobolus lachnodes* 700

102381-6 *Conidiobolus coronatus* 655

102381-9 *Metarhizium anisopliae* 683

102981-2 *Hirsutella citriformis* 684

103a *Metarhizium anisopliae* 1903

110485-2 *Entomophaga* sp. 1881

1110 *Beauveria bassiana* 285

26102a *Conidiobolus* nr. *coronatus* 1742

26104 *Conidiobolus* nr. *coronatus* 1743

26105 *Pandora delphacis* 1731

26108 *Pandora delphacis* 1730

291001 *Metarhizium anisopliae* 1728

291013 *Metarhizium anisopliae* 1726

291014 *Metarhizium anisopliae* 1744

291015 *Metarhizium anisopliae* 1727

291016 *Metarhizium anisopliae* 1745

291017 *Metarhizium anisopliae* 1725

29103 *Metarhizium anisopliae* 1724

29103b *Metarhizium anisopliae* 1823

2910B *Metarhizium anisopliae* 1729

2A2-B(b) *Beauveria bassiana* 333

2A3-B(a) *Beauveria bassiana* 334

2B2-A *Beauveria bassiana* 335

3T *Beauveria bassiana* 291

5A *Metarhizium flavoviride* var. *minus* 1302

81280 *Metarhizium anisopliae* 543

81380-4 *Conidiobolus coronatus* 511

82180-13b *Paecilomyces farinosus* 531

82180-2a *Hirsutella citriformis* 532

82180-4a *Conidiobolus coronatus* 512

82180-4c *Conidiobolus coronatus* 524

82180-7b *Conidiobolus* sp. 522

82180-7c *Conidiobolus coronatus* 514

82380-19 *Conidiobolus* sp. 517

82380-20 *Conidiobolus coronatus* 520

82380-22 *Conidiobolus coronatus* 523

82880-1 *Tilletiopsis* sp. 573

82880-11 *Conidiobolus coronatus* 525

82880-2 *Tilletiopsis* sp. 572

82880-2 *Tilletiopsis* sp. 527

82980-1 *Conidiobolus coronatus* 528

A *Conidiobolus coronatus* 418

A1 *Metarhizium flavoviride* var. *minus* 1291

A10 *Metarhizium flavoviride* var. *minus* 1303

A8 *Metarhizium flavoviride* var. *minus* 1099

- A9 *Metarhizium flavoviride* var. minus 1297
B *Conidiobolus coronatus* 419
Bbass-2 *Beauveria bassiana* 302
Bbass-3 *Beauveria bassiana* 303
Bbass-4 *Beauveria bassiana* 304
Bbass-5 *Beauveria bassiana* 305
BPH-10 *Metarhizium flavoviride* var. minus 1287
BPH-11 *Metarhizium anisopliae* 1290
BPH-12 *Metarhizium anisopliae* 1284
BPH-13 *Metarhizium anisopliae* 1285
BPH-3[?] *Metarhizium flavoviride* var. minus 1295
BPH-3[?] *Metarhizium flavoviride* var. minus 1294
BPH-4 *Metarhizium anisopliae* 1286
BPH-5 *Metarhizium flavoviride* var. minus 1274
BPH-6 *Metarhizium flavoviride* var. minus 1296
BPH-7 *Metarhizium flavoviride* var. minus 1289
BPH-8 *Metarhizium flavoviride* var. minus 1275
Bq *Metarhizium flavoviride* var. minus 1272
BSS-1 *Beauveria bassiana* 286
BSS-2 *Beauveria bassiana* 287
BSS-3 *Beauveria bassiana* 288
BSS-4 *Beauveria bassiana* 289
BSS-5 *Beauveria bassiana* 290
C *Metarhizium flavoviride* var. minus 1292
CLB-2 *Beauveria bassiana* 296
D *Metarhizium anisopliae* 1304
E *Conidiobolus coronatus* 421
F *Conidiobolus coronatus* 422
H *Metarhizium flavoviride* var. minus 1293
H.citrif *Hirsutella citriformis* 1837
I *Metarhizium flavoviride* var. minus 1277
I FAR *Beauveria bassiana* 308
IV *Metarhizium flavoviride* var. minus 1276
IX *Metarhizium flavoviride* var. minus 1279
Ma Teotor S2 SS#1 *Metarhizium anisopliae* 875
Ma Teotor S2 SS#10 *Metarhizium anisopliae* 898
Ma Teotor S2 SS#11 *Metarhizium anisopliae* 897
Ma Teotor S2 SS#12 *Metarhizium anisopliae* 896
Ma Teotor S2 SS#13 *Metarhizium anisopliae* 895
Ma Teotor S2 SS#14 *Metarhizium anisopliae* 894
Ma Teotor S2 SS#15 *Metarhizium anisopliae* 870
Ma Teotor S2 SS#16 *Metarhizium anisopliae* 868
Ma Teotor S2 SS#17 *Metarhizium anisopliae* 869
Ma Teotor S2 SS#18 *Metarhizium anisopliae* 867
Ma Teotor S2 SS#19 *Metarhizium anisopliae* 864
Ma Teotor S2 SS#2 *Metarhizium anisopliae* 874
Ma Teotor S2 SS#20 *Metarhizium anisopliae* 865
Ma Teotor S2 SS#21 *Metarhizium anisopliae* 871
Ma Teotor S2 SS#22 *Metarhizium anisopliae* 866
Ma Teotor S2 SS#3 *Metarhizium anisopliae* 893
Ma Teotor S2 SS#4 *Metarhizium anisopliae* 873
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1097
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1091
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1090
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1089
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1088
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1087
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1086
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1085
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1084
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1083
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1025
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1024
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1023
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 1022
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 968
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 967
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 966
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 965
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 960
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 922
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 921
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 913
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 912
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 911
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 910
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 909
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 908
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 907
Ma Teotor S2 SS#5 *Metarhizium anisopliae* 872
Ma Teotor S2 SS#6 *Metarhizium anisopliae* 892
Ma Teotor S2 SS#7 *Metarhizium anisopliae* 891
Ma Teotor S2 SS#8 *Metarhizium anisopliae* 890
Ma Teotor S2 SS#9 *Metarhizium anisopliae* 889
MaT3JB-A *Metarhizium anisopliae* 1878
MaT3JB-B *Metarhizium anisopliae* 1298
MaT3JB-C *Metarhizium anisopliae* 1280
N-2 *Beauveria bassiana* 284
Pol-32 *Metarhizium anisopliae* var. majus 1859
Pol-42 *Metarhizium anisopliae* var. majus 1858
R *Metarhizium flavoviride* var. minus 1305
S *Metarhizium flavoviride* var. minus 1271
SG-(F) *Beauveria bassiana* 334
SG-(G) *Beauveria bassiana* 335
SG-(G) *Beauveria bassiana* 333
SG-8 *Beauveria bassiana* 306
SH-8 *Beauveria bassiana* 307
single spore isolate #1 *Metarhizium anisopliae* 1280
single spore isolate #9 *Metarhizium anisopliae* 1298
T2 *Metarhizium flavoviride* var. minus 1273
V-14 (F84 mutant) *Metarhizium anisopliae* 1897
VI *Metarhizium flavoviride* var. minus 1301
VII *Metarhizium flavoviride* var. minus 1283
VIII *Metarhizium anisopliae* 1300
VSS#1 *Metarhizium anisopliae* 906
VSS#2 *Metarhizium anisopliae* 905
VSS#3 *Metarhizium anisopliae* 904
VSS#4 *Metarhizium anisopliae* 903
VSS#5 *Metarhizium anisopliae* 902
VSS#6 *Metarhizium anisopliae* 901
Roberts, Steve
Champ90LH2To(B) *Zoophthora radicans* 3283
Champ90LH2To(E) *Zoophthora radicans* 3284
Rodriguez Sierra, Dora Alba
103 Bb *Beauveria bassiana* 2297
106 Bb *Beauveria bassiana* 2248
201 Bb *Beauveria bassiana* 2250
203 Bb *Beauveria bassiana* 2249

Rombach, Michiel C.

- 030786-2 *Hirsutella* sp. 2208
041186-1 *Beauveria bassiana* 2360
051185-4 *Metarhizium flavoviride* var. minus 2037
061185-1 *Metarhizium anisopliae* 2043
070786-5 *Hirsutella* sp. 2209
071185-2 *Hirsutella strigosa* 2044
071185-3 *Fusarium semitectum* 2053
090586-1 *Hirsutella repens* 2394
090586-1 *Hirsutella repens* 2359
090586-1 *Hirsutella repens* 2348
090686-1 *Hirsutella strigosa* 2197
10B *Hirsutella citriformis* 1436
11(ascosp.) *Torrubiella ratticaudata* 1915
111286-2 *Nomuraea rileyi* 2345
111286-4 *Hirsutella citriformis* 2346
120186-2 *Metarhizium flavoviride* var. minus 2339
120286-1 *Paecilomyces reniformis* 2340
120286-2 *Metarhizium anisopliae* 2341
120286-3 *Metarhizium anisopliae* 2342
120286-4 *Metarhizium anisopliae* 2343
121186-1 *Nomuraea rileyi* 2395
130586-14 *Nomuraea rileyi* 2174
130586-17 *Metarhizium album* 2176
130586-18 *Metarhizium album* 2177
130586-19 *Metarhizium album* 2178
130586-20 *Metarhizium album* 2179
130586-3 *Paecilomyces farinosus* 2175
131286-1 *Verticillium cinnamomeum* 2399
131286-13 *Aschersonia insperata* 2398
131286-19 *Aschersonia insperata* 2397
131286-19 *Aschersonia insperata* 2351
131286-6 *Paecilomyces* sp. 2378
131286-6 *Paecilomyces* sp. 2350
14 *Verticillium* nr. *araneum* 1905
140486 *Metarhizium* sp. 2224
140486-1 *Metarhizium* sp. 2225
140486-1 *Metarhizium* sp. 2210
140486-1 *Aspergillus* nr. *parasiticus* 2173
161085-11 *Torrubiella homopterorum* 2045
161085-35 *Metarhizium anisopliae* 2038
161085-36 *Metarhizium anisopliae* 2039
161285-1 *Paecilomyces fumosoroseus* 2198
170386-1 *Metarhizium anisopliae* var. *majus* 2151
171085-1 *Beauveria bassiana* 2040
181286-1B *Hirsutella citriformis* 2347
190386-1 *Paecilomyces gaei* 2152
190688-1 *Hirsutella verticilloides* 2599
2 *Calcarisporium ovalisporum* 1907
200386-2 *Metarhizium anisopliae* 2153
201286-2 *Hirsutella guyana* 2387
201286-2 *Hirsutella guyana* 2352
201286-4 *Metarhizium anisopliae* 2353
201286-5 *Paecilomyces fumosoroseus* 2376
201286-6 *Paecilomyces* sp. 2354
201286-7 *Paecilomyces farinosus* 2355
201286-8 *Aschersonia insperata* 2356
220386-1 *Hirsutella bogoriensis* 2187
220386-1 *Aschersonia aleyrodis* 2154

- 220786-1 *Metarhizium anisopliae* var. *anisopliae* 2230
221086-1 *Paecilomyces farinosus* 2344
281085-1 *Beauveria bassiana* 2041
3 *Nomuraea rileyi* 1893
301286-7 *Aschersonia insperata* 2357
301286-8 *Aschersonia insperata* 2358
301286-9 *Hirsutella insperata* 2396
5 *Hirsutella citriformis* 1908
7 *Nomuraea atypicola* 1904
9(ext.myc.) *Torrubiella ratticaudata* 1916
9(int.myc.) *Gibellula clavulifera* var. *alba* 1909
A *Zoopthora radicans* 1699
A *Beauveria brongniartii* 1431
B *Metarhizium anisopliae* 1432
Cov-2 *Calcarisporium ovalisporum* 2035
Cov-5 *Calcarisporium ovalisporum* 2036
E Unidentified 1703
Gib-Gam *Gibellula pulchra* 1732
H.min. *Hirsutella citriformis* 1549
H.Pal. *Hirsutella citriformis* 1550
H.sep. *Hirsutella* sp. 1551
II.1 *Metarhizium anisopliae* 1435
Lib.11 *Metarhizium flavoviride* var. minus 1546
Lib.16 *Metarhizium flavoviride* var. minus 1547
Ma Pal.I *Metarhizium anisopliae* 1548
Ma Pal.II *Metarhizium anisopliae* 1545
MALBIRRI *Metarhizium flavoviride* var. minus 1945
MLAG *Metarhizium album* 1942
MLAGwhite *Metarhizium album* 1943
MMQ *Metarhizium anisopliae* var. *majus* 1946
MPAL *Metarhizium album* 1941
Nr-B *Nomuraea rileyi* 1761
PAEC *Paecilomyces lilacinus* 1552

Romney, Steven V.

- LGNC-1 *Lagenidium giganteum* 373

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- 1269 *Basidiobolus haptospora* 263
1737 *Basidiobolus microsporus* 268
2088 *Basidiobolus microsporus* 269
2252 *Basidiobolus haptospora* 264
228 *Basidiobolus haptospora* 261
334 *Basidiobolus ranarum* 260
962 *Basidiobolus microsporus* 265
964 *Basidiobolus haptospora* 262
977 *Basidiobolus microsporus* 266
982 *Basidiobolus microsporus* 267

Sánchez Peña, Sergio René

- 1 *Metarhizium anisopliae* 2764
2 *Verticillium* sp. 2832
3 *Verticillium* sp. 2822
3-2 *Beauveria bassiana* 2857
4-2 *Conidiobolus* sp. 2819
A1 *Paecilomyces tenuipes* 2488
A2 *Paecilomyces tenuipes* 2489
B1 *Paecilomyces tenuipes* 2490
B2 *Paecilomyces tenuipes* 2491
Trachym 1 *Beauveria bassiana* 2484

- Trachym 2 *Beauveria bassiana* 2485
Trachym 3 *Beauveria bassiana* 2486

Sandoval, Sonia

- 87 *Metarhizium* sp. 2556
95 *Beauveria bassiana* 2557

SBI

- 87-1 *Beauveria bassiana* 2417
87-2 *Fusarium* sp. 2418

Schaerffenberg, Bruno

- Ma1 *Metarhizium anisopliae* 847
Ma10 *Metarhizium anisopliae* 851
Ma11 *Metarhizium anisopliae* 853
Ma12 *Metarhizium anisopliae* 856
Ma13 *Metarhizium anisopliae* 845
Ma14 *Metarhizium anisopliae* 854
Ma15 *Metarhizium anisopliae* 850
Ma16 *Metarhizium anisopliae* 844
Ma17 *Metarhizium anisopliae* 848
Ma18 *Metarhizium anisopliae* 846
Ma19 *Metarhizium anisopliae* 858
Ma2 *Metarhizium anisopliae* 862
Ma20 *Metarhizium anisopliae* 861
Ma3 *Metarhizium anisopliae* 863
Ma4 *Metarhizium anisopliae* 859
Ma5 *Metarhizium anisopliae* 855
Ma6 *Metarhizium anisopliae* 852
Ma7 *Metarhizium anisopliae* 860
Ma8 *Metarhizium anisopliae* 849
Ma9 *Metarhizium anisopliae* 857

Searle, Tanya

- CW1 *Beauveria bassiana* 2983
CW2 *Beauveria bassiana* 2984
CW3 *Beauveria bassiana* 2985
CW4 *Beauveria bassiana* 2986
CWMA *Metarhizium anisopliae* 2981
E *Metarhizium anisopliae* var. *anisopliae* 2134
F *Metarhizium anisopliae* var. *anisopliae* 2135
K *Metarhizium anisopliae* var. *anisopliae* 2136
LD1 *Beauveria bassiana* 2987
LD2 *Beauveria bassiana* 2988
LD3 *Beauveria bassiana* 2989
LD4 *Beauveria bassiana* 2990
LD5 *Beauveria bassiana* 2991
N *Metarhizium anisopliae* var. *anisopliae* 2140
PAMA *Metarhizium anisopliae* 2982
Q *Metarhizium anisopliae* var. *anisopliae* 2137
W *Metarhizium anisopliae* var. *anisopliae* 2138
Z *Metarhizium anisopliae* var. *anisopliae* 2139

Shepard, B.M.

- NrMin-1 *Nomuraea rileyi* 1758
NrMin-14 *Nomuraea rileyi* 1756
NrMin-19 *Nomuraea rileyi* 1757
NrMin-23 *Nomuraea rileyi* 1760
NrMin-5 *Nomuraea rileyi* 1759

Shimazu, Mitsuaki

- 48a *Paecilomyces flavovirescens* 1686
F-16 *Pandora delphacis* 1124
F-17 *Zoophthora radicans* 1125
F-185 *Beauveria bassiana* 1677
F-237 *Beauveria bassiana* 1678
F-25 *Conidiobolus obscurus* 1131
F-263 *Beauveria bassiana* 1679
F-313 *Beauveria brongniartii* 1680
F-32 *Pandora delphacis* 1132
F-327 *Entomophaga aulicae* 1657
F-33 *Pandora delphacis* 1133
F-333 *Beauveria* sp. 1681
F-339 *Entomophaga aulicae* 1656
F-339 *Entomophaga aulicae* 1140
F-343 *Entomophaga aulicae* 1655
F-344 *Erynia* sp. 1143
F-356 *Furia neopyralidarum* 1145
F-357(11) *Beauveria amorphia* 1682
F-359(30) *Beauveria bassiana* 1683
F-36 *Pandora neoaphidis* 1134
F-382 *Conidiobolus obscurus* 1146
F-43 *Zoophthora radicans* 1136
F-430(4) *Paecilomyces andoi* 1684
F-446 *Entomophaga maimaiga* 1658
F-448(1) *Zoophthora radicans* 1674
F-448(2) *Zoophthora radicans* 1675
F-450 *Beauveria* sp. 1685
F-457 *Entomophaga asiatica* 1659
F-522 *Cordyceps militaris* 2416
F-530-1 *Entomophaga aulicae* 2374
F-530-2 *Entomophaga aulicae* 2373
F-531 *Entomophaga aulicae* 2372
F-54 *Pandora neoaphidis* 1137
F-541-1 *Entomophaga maimaiga* 2371
F-541-2 *Entomophaga maimaiga* 2370
F-545 *Tilachlidium* sp. 2415
F-553-1 *Entomophaga aulicae* 2365
F-553-3 *Entomophaga aulicae* 2363
F-554-1 *Entomophaga aulicae* 2369
F-554-2 *Entomophaga aulicae* 2368
F-554-3 *Entomophaga aulicae* 2367
F-554-4 *Entomophaga aulicae* 2362
F-555 *Entomophaga aulicae* 2366
F-56 *Pandora delphacis* 1268
F-57 *Basidiobolus ranarum* 1139
F-77 *Beauveria brongniartii* 1676
FE1 *Pandora dipterigena* 1923
FE2 Unidentified 1922
FE3 *Zoophthora radicans* 1921

Sivcev, Ivan L.

- 160/85 *Conidiobolus* sp. 2130
174/85 *Pandora neoaphidis* 2108
184/85 *Pandora neoaphidis* 2109
185/85 *Pandora neoaphidis* 2110
198/85 *Pandora neoaphidis* 2123
20/86 *Erynia* sp. 2279
202 Unidentified 1693
21/85 *Pandora neoaphidis* 2016
216 Unidentified 1694
217 *Pandora neoaphidis* 1695
228/85 *Pandora neoaphidis* 2111
229/85 *Pandora neoaphidis* 2112
249/85 *Pandora neoaphidis* 2124
261/85 *Pandora neoaphidis* 2128

- 271 *Pandora neoaphidis* 1786
271/85 *Pandora neoaphidis* 2114
278 *Pandora neoaphidis* 1785
280/85 *Pandora neoaphidis* 2115
281 *Pandora neoaphidis* 1784
282/85 *Pandora neoaphidis* 2116
284/85 *Pandora neoaphidis* 2117
287 *Verticillium lecanii* 1787
291/85 *Pandora neoaphidis* 2118
294/85 *Pandora neoaphidis* 2119
297/85 *Pandora neoaphidis* 2120
301/85 *Pandora neoaphidis* 2121
304/85 *Pandora neoaphidis* 2122
42/86 *Erynia* sp. 2292
46/86 *Pandora neoaphidis* 2280
52/86 *Zoophthora phalloides* 2281
53/86 *Pandora neoaphidis* 2293
55/85 Unidentified 2022
55/86 *Erynia* sp. 2294
63/85 *Pandora neoaphidis* 2019
65/85 *Pandora neoaphidis* 2020
74/85 *Pandora neoaphidis* 2017
76/85 *Pandora neoaphidis* 2018
F-19 *Pandora neoaphidis* 1825
F-30 *Pandora neoaphidis* 1827
F-34 *Pandora neoaphidis* 1826
R-1 *Pandora neoaphidis* 1696
V-11 *Pandora neoaphidis* 1824

Skinner, Margaret

- Ch:BG:60(5WM) *Hirsutella* sp. 1 2939
Ch:BG:61(8WM) *Hirsutella* sp. 1 2940

Smith, Michael

- I01:020 *Conidiobolus* sp. 1488
K13:004 *Conidiobolus* sp. 1445
L05:001 *Conidiobolus* sp. 1444
N01:141 *Conidiobolus* sp. 1485
O08:017 *Conidiobolus* sp. 1486
Q01:119 *Conidiobolus* sp. 1487

Soares, George G.

- 1 *Paecilomyces fumosoroseus* 887
1 *Fusarium coccophilum* 821
10 *Beauveria bassiana* 814
12 *Beauveria bassiana* 815
17 *Metarhizium anisopliae* 817
19 *Metarhizium anisopliae* 818
20 *Beauveria bassiana* 816
21 *Metarhizium anisopliae* 819
3 *Beauveria bassiana* 812
34 *Beauveria bassiana* 886
6 *Beauveria bassiana* 813
A7 *Metarhizium anisopliae* 820
Tc4c *Tolypocladium cylindrosporum* 1580

Soper, Richard S.

- 10 *Nomuraea rileyi* 481
81223-1 *Entomophaga australiensis* 581
81223-1 *Pandora delphacis* 580
81223-1 *Gibellula* sp. 569
81224-2 *Conidiobolus coronatus* 567
81225-1 *Hirsutella* sp. 568
81226-1 *Conidiobolus* sp. 596
81226-1 *Hirsutella citrififormis* 591
81226-3 *Beauveria bassiana* 566
81227-2 *Conidiobolus* sp. 595

- 81227-3 *Conidiobolus* nr. *coronatus* 600
81227-4 *Conidiobolus* nr. *coronatus* 599
81228-1 *Gibellula* sp. 570
8132 *Beauveria bassiana* 560
8132-1 *Pandora delphacis* 579
8132-1 *Pandora delphacis* 575
8133-1 *Conidiobolus* sp. 606
8133-1 *Conidiobolus* sp. 605
8133-1 *Conidiobolus coronatus* 597
8133-1 *Metarhizium anisopliae* 576
8133-1/BPH-1 *Conidiobolus coronatus* 565
8133-1/BPH-1 *Conidiobolus* sp. 564
8133-1/BPH-2 *Conidiobolus coronatus* 563
8133-2 *Conidiobolus* sp. 604
8133-2 *Pandora delphacis* 603
8133-2 *Conidiobolus* nr. *coronatus* 602
8133-2 *Pandora delphacis* 593
8133-3 *Nomuraea rileyi* 558
8135 *Conidiobolus* nr. *coronatus* 598
84528-1 *Batkoa major* 1427
84626-3 *Entomophaga maimaiga* 1390
84626-7 *Entomophaga maimaiga* 1400
84626-7-1 *Entomophaga maimaiga* 1392
84626-7-1 *Entomophaga maimaiga* 1391
84627-6 *Entomophaga asiatica* 1393
8465-1 *Conidiobolus* sp. 1426
B *Beauveria bassiana* 1553
B *Pandora delphacis* 478
Bb-1 *Beauveria bassiana* 356
Bb-2 *Beauveria bassiana* 357
C *Beauveria bassiana* 1554
D *Beauveria bassiana* 1555
E *Beauveria bassiana* 1556
F84-1-1 *Metarhizium anisopliae* 23
NT-20 *Metarhizium anisopliae* 487
NT-21 *Metarhizium anisopliae* 485
NT-22 *Metarhizium anisopliae* 489
NT-24 *Metarhizium anisopliae* 488
NT-25 *Metarhizium anisopliae* 486
P-38 *Entomophaga australiensis* 328

St. Leger, Raymond J.

- ME-1 *Metarhizium anisopliae* 3608
ME-1 *Metarhizium anisopliae* 2575

Steenberg, Tove

- 186 *Tolypocladium cylindrosporum* 2777
187 *Tolypocladium cylindrosporum* 2778

Steinkraus, Donald C.

- 1 *Pandora neoaphidis* 3248
2 *Pandora neoaphidis* 3249
5 *Pandora neoaphidis* 3250
6 *Pandora neoaphidis* 3251

Strongman, Doug

- 1 *Hirsutella* sp. 2581

Sweeney, Anthony W.

- 298A *Culicinomyces clavisporus* 644
298B *Culicinomyces clavisporus* 645

Tate and Lyle Ltd

Batch No. B1830 *Metarhizium anisopliae*
3608
Batch No. B1830 *Metarhizium anisopliae*
2575

Tatman, Kathy

MD109#3 *Paecilomyces farinosus* 2835
MD110#28 *Penicillium* sp. 2836
MD19#14 *Aspergillus flavus* 2833
MD97#18 *Penicillium* sp. 2834
MD99#6 *Beauveria bassiana* 2831

Teakle, Robert

M-100 *Metarhizium anisopliae* 324
M-168 *Beauveria bassiana* 326

Teotor-Barsch, Gertrude

F84-1-1 *Metarhizium anisopliae* 1097
F84-1-1 *Metarhizium anisopliae* 1091
F84-1-1 *Metarhizium anisopliae* 1090
F84-1-1 *Metarhizium anisopliae* 1089
F84-1-1 *Metarhizium anisopliae* 1088
F84-1-1 *Metarhizium anisopliae* 1087
F84-1-1 *Metarhizium anisopliae* 1086
F84-1-1 *Metarhizium anisopliae* 1085
F84-1-1 *Metarhizium anisopliae* 1084
F84-1-1 *Metarhizium anisopliae* 1083
F84-1-1 *Metarhizium anisopliae* 1025
F84-1-1 *Metarhizium anisopliae* 1024
F84-1-1 *Metarhizium anisopliae* 1023
F84-1-1 *Metarhizium anisopliae* 1022
F84-1-1 *Metarhizium anisopliae* 968
F84-1-1 *Metarhizium anisopliae* 967
F84-1-1 *Metarhizium anisopliae* 966
F84-1-1 *Metarhizium anisopliae* 965
F84-1-1 *Metarhizium anisopliae* 960
F84-1-1 *Metarhizium anisopliae* 922
F84-1-1 *Metarhizium anisopliae* 921
F84-1-1 *Metarhizium anisopliae* 913
F84-1-1 *Metarhizium anisopliae* 912
F84-1-1 *Metarhizium anisopliae* 911
F84-1-1 *Metarhizium anisopliae* 910
F84-1-1 *Metarhizium anisopliae* 909
F84-1-1 *Metarhizium anisopliae* 908
F84-1-1 *Metarhizium anisopliae* 907
F84-1-1 *Metarhizium anisopliae* 1094

TeStrake, Diane

TL-10 *Basidiobolus* sp. 2048
TL-12 *Basidiobolus* sp. 2049
TL-13 *Basidiobolus* sp. 2050
TT-5 *Basidiobolus* sp. 2051
TT-9 *Basidiobolus* sp. 2052

Timper, Patricia

C1 *Drechmeria coniospora* 3354
C3 *Hirsutella rhossiliensis* 3207
C11 Unidentified 3735

Tucker, Bruce E.

171 *Conidiobolus coronatus* 274

Turlington, Lewis

West Borax 1, colony B *Paecilomyces farinosus* 1939

UAF

189 *Beauveria bassiana* 2953

UAMH

1514 *Beauveria bassiana* 2454
2994 *Paecilomyces viridis* 2456
4132 *Beauveria bassiana* 2455
4563 *Tolypocladium cylindrosporum* 961
4592 *Tolypocladium cylindrosporum* 962
4593 *Tolypocladium cylindrosporum* 963
4618 *Culicinomyces clavisporus* 964
4848 *Culicinomyces clavisporus* 372
4849 *Culicinomyces clavisporus* 582
4850 *Culicinomyces clavisporus* 584
4851 *Culicinomyces clavisporus* 706
4854 *Culicinomyces clavisporus* 2482
4854 *Culicinomyces clavisporus* 1260
4869 *Culicinomyces clavisporus* 583
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- 20 *Paecilomyces farinosus*
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- 22 *Conidiobolus thromboides*
- 23 *Metarhizium anisopliae*
- 29 *Conidiobolus thromboides*
- 30 *Hirsutella gigantea*
- 32 *Beauveria brongniartii*
- 38 *Paecilomyces farinosus*
- 39 *Conidiobolus thromboides*
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- 42 *Conidiobolus thromboides*
- 44 *Zoopphthora radicans*
- 45 *Zoopphthora radicans*
- 50 *Zoopphthora radicans*
- 51 *Entomophaga aulicae*
- 52 *Zoopphthora radicans*
- 55 *Paecilomyces farinosus*
- 57 *Conidiobolus thromboides*
- 58 *Conidiobolus thromboides*
- 59 *Conidiobolus thromboides*
- 63 *Conidiobolus thromboides*
- 64 *Conidiobolus thromboides*
- 67 *Conidiobolus obscurus*
- 68 *Zoopphthora radicans*
- 70 *Conidiobolus thromboides*
- 72 *Zoopphthora radicans*
- 73 *Conidiobolus thromboides*
- 74 *Conidiobolus obscurus*
- 75 *Zoopphthora radicans*
- 78 *Pandora neoaphidis*
- 79 *Conidiobolus osmodes*
- 80 *Zoopphthora radicans*
- 81 *Zoopphthora radicans*
- 83 *Conidiobolus thromboides*
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- 88 *Zoopphthora radicans*
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- 97 *Conidiobolus obscurus*
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- 103 *Zoopphthora radicans*
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- 108 *Zoopphthora radicans*
- 109 *Zoopphthora radicans*
- 110 *Zoopphthora radicans*
- 111 *Zoopphthora radicans*
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- 115 *Conidiobolus thromboides*
- 116 *Pandora bullata*
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- 121 *Conidiobolus obscurus*
- 122 *Conidiobolus obscurus*
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- 125 *Conidiobolus obscurus*
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- 128 *Pandora neoaphidis*
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- 134 *Pandora delphacis*
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- 137 *Hirsutella thompsonii*
- 138 *Pandora nr. echinospora*
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- 141 *Zoopphthora radicans*
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- 145 *Zoopphthora radicans*
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- 147 *Conidiobolus sp.*
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- 149 *Beauveria bassiana*
- 150 *Beauveria bassiana*
- 151 *Beauveria bassiana*
- 152 *Beauveria bassiana*
- 153 *Beauveria bassiana*
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- 160 *Beauveria bassiana*
- 161 *Zoopphthora radicans*
- 162 *Zoopphthora radicans*
- 163 *Zoopphthora radicans*
- 164 *Entomophaga aulicae*
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- 167 *Entomophaga aulicae*
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- 177 *Hirsutella gigantea*
- 178 *Hirsutella gigantea*
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- 180 *Saprolegnia sp.*
- 181 *Pandora neoaphidis*
- 182 *Conidiobolus obscurus*
- 183 *Zoopphthora radicans*
- 184 *Zoopphthora radicans*
- 185 *Zoopphthora radicans*
- 186 *Zoopphthora radicans*
- 187 *Zoopphthora radicans*
- 188 *Zoopphthora radicans*
- 189 *Zoopphthora radicans*
- 191 *Zoopphthora phytonomi*
- 192 *Zoopphthora phytonomi*
- 194 *Conidiobolus thromboides*
- 195 *Zoopphthora radicans*
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- 208 *Conidiobolus thromboides*
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- 217 *Pandora blunckii*
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- 219 *Erynia rhizospora*
- 220 *Beauveria bassiana*
- 221 *Zoopphthora radicans*
- 222 *Zoopphthora radicans*
- 223 *Zoopphthora radicans*
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- 238 *Zoopphthora radicans*
- 239 *Zoopphthora radicans*
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- 244 *Conidiobolus thromboides*
- 245 *Conidiobolus thromboides*
- 246 *Conidiobolus thromboides*
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- 248 *Conidiobolus thromboides*
- 249 *Conidiobolus thromboides*
- 250 *Conidiobolus thromboides*
- 251 *Entomophaga aulicae*
- 252 *Beauveria bassiana*
- 253 *Hirsutella thompsonii*
- 254 *Hirsutella thompsonii*
- 255 *Hirsutella thompsonii*
- 256 *Hirsutella thompsonii*
- 257 *Hirsutella thompsonii*
- 258 *Hirsutella thompsonii*
- 259 *Hirsutella thompsonii*
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- 261 *Basidiobolus haptospora*
- 262 *Basidiobolus haptospora*
- 263 *Basidiobolus haptospora*
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- 266 *Basidiobolus microsporus*
- 267 *Basidiobolus microsporus*
- 268 *Basidiobolus microsporus*
- 269 *Basidiobolus microsporus*
- 270 *Basidiobolus sp.*
- 271 *Basidiobolus sp.*
- 272 *Basidiobolus haptospora*
- 273 *Basidiobolus sp.*
- 274 *Conidiobolus coronatus*
- 275 *Beauveria bassiana*
- 276 *Beauveria bassiana*
- 277 *Beauveria bassiana*
- 278 *Beauveria bassiana*
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 292 *Beauveria bassiana*
 293 *Beauveria bassiana*
 294 *Paecilomyces farinosus*
 295 *Beauveria bassiana*
 296 *Beauveria bassiana*
 297 *Metarhizium anisopliae* var. *majus*
 298 *Metarhizium anisopliae* var. *majus*
 299 *Beauveria bassiana*
 300 *Beauveria bassiana*
 301 *Beauveria bassiana*
 302 *Beauveria bassiana*
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 306 *Beauveria bassiana*
 307 *Beauveria bassiana*
 308 *Beauveria bassiana*
 309 *Paecilomyces* sp.
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 314 *Verticillium lecanii*
 317 *Beauveria bassiana*
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 319 *Beauveria bassiana*
 320 *Beauveria bassiana*
 321 *Verticillium lecanii*
 322 *Paecilomyces javanicus*
 323 *Nomuraea rileyi*
 324 *Metarhizium anisopliae*
 325 *Beauveria bassiana*
 326 *Beauveria bassiana*
 328 *Entomophaga australiensis*
 331 *Entomophaga australiensis*
 333 *Beauveria bassiana*
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 338 *Beauveria bassiana*
 340 *Beauveria bassiana*
 341 *Aschersonia aleyrodis*
 342 *Aschersonia aleyrodis*
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 344 *Beauveria bassiana*
 346 *Metarhizium anisopliae*
 349 *Conidiobolus coronatus*
 350 *Beauveria bassiana*
 351 *Zoophthora phalloides*
 352 *Zoophthora phalloides*
 353 *Beauveria bassiana*
 354 *Conidiobolus obscurus*
 355 *Conidiobolus obscurus*
 356 *Beauveria bassiana*
 357 *Beauveria bassiana*
 358 *Nomuraea rileyi*
 359 *Zoophthora radicans*
 362 *Pandora nouri*
 363 *Conidiobolus thromboides*
 365 *Entomophaga australiensis*
 366 *Pandora nouri*
 368 *Myriodontium keratinophilum*
 369 *Pandora kondoiensis*
 370 *Zoophthora radicans*
 372 *Culicinomyces clavisporeus*
 373 *Lagenidium giganteum*
 374 *Massospora cicadina*
 375 *Entomophaga macleodii*
 376 *Entomophaga macleodii*
 377 *Sorospora* sp.
 379 *Zoophthora radicans*
 380 *Nomuraea rileyi*
 381 *Pandora neoaphidis*
 382 *Entomophaga macleodii*
 383 *Entomophaga calopteni*
 384 *Beauveria bassiana*
 385 *Paecilomyces* sp.
 386 *Myriodontium keratinophilum*
 387 *Entomophthora culicis*
 388 *Zoophthora radicans*
 389 *Zoophthora radicans*
 390 *Entomophaga calopteni*
 391 *Conidiobolus* sp.
 392 *Entomophthora muscae*
 393 *Entomophaga aulicae*
 394 *Furia virescens*
 395 *Batkoa apiculata*
 396 *Zoophthora anglica*
 397 *Pandora dipterigena*
 399 *Erynia ovispora*
 400 *Erynia ovispora*
 403 *Batkoa gigantea*
 404 *Zoophthora radicans*
 405 *Conidiobolus coronatus*
 406 *Conidiobolus coronatus*
 407 *Zoophthora radicans*
 408 *Entomophaga calopteni*
 410 *Paecilomyces lilacinus*
 412 *Beauveria bassiana*
 413 *Beauveria bassiana*
 414 *Hirsutella thompsonii*
 416 *Beauveria bassiana*
 418 *Conidiobolus coronatus*
 419 *Conidiobolus coronatus*
 421 *Conidiobolus coronatus*
 422 *Conidiobolus coronatus*
 425 *Zoophthora aphidis*
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 427 *Furia virescens*
 429 *Paecilomyces reniformis*
 430 *Aschersonia aleyrodis*
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 432 *Aschersonia aleyrodis*
 433 *Beauveria bassiana*
 434 *Conidiobolus obscurus*
 435 *Metarhizium anisopliae*
 436 *Metarhizium anisopliae*
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 458 *Pandora delphacis*
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 470 *Furia virescens*
 471 *Conidiobolus coronatus*
 472 *Metarhizium anisopliae*
 473 *Metarhizium anisopliae* var. *majus*
 474 *Beauveria bassiana*
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 476 *Paecilomyces farinosus*
 477 *Beauveria bassiana*
 478 *Pandora delphacis*
 481 *Nomuraea rileyi*
 482 *Nomuraea rileyi*
 483 *Nomuraea rileyi*
 484 *Paecilomyces reniformis*
 485 *Metarhizium anisopliae*
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 489 *Metarhizium anisopliae*
 490 *Hirsutella citriformis*
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 496 *Entomophaga macleodii*
 497 *Entomophaga calopteni*
 498 *Entomophaga calopteni*
 499 *Entomophaga macleodii*
 500 *Entomophaga calopteni*
 501 *Beauveria bassiana*
 502 *Beauveria bassiana*
 503 *Beauveria bassiana*
 504 *Beauveria bassiana*
 505 *Beauveria bassiana*
 506 *Beauveria bassiana*
 507 *Beauveria bassiana*
 509 *Beauveria bassiana*
 510 *Beauveria bassiana*
 511 *Conidiobolus coronatus*
 512 *Conidiobolus coronatus*
 514 *Conidiobolus coronatus*
 517 *Conidiobolus* sp.
 520 *Conidiobolus coronatus*
 522 *Conidiobolus* sp.
 523 *Conidiobolus coronatus*
 524 *Conidiobolus coronatus*
 525 *Conidiobolus coronatus*
 527 *Tilletiopsis* sp.
 528 *Conidiobolus coronatus*
 531 *Paecilomyces farinosus*
 532 *Hirsutella citriformis*
 533 *Beauveria bassiana*
 534 *Beauveria bassiana*
 535 *Beauveria bassiana*
 536 *Beauveria bassiana*
 538 *Metarhizium anisopliae* var. *anisopliae*
 539 *Nomuraea rileyi*
 543 *Metarhizium anisopliae*
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 550 *Metarhizium anisopliae*
 551 *Metarhizium anisopliae*
 552 *Metarhizium anisopliae*
 555 *Verticillium lecanii*
 556 *Entomophthora muscae*
 557 *Entomophthora muscae*
 558 *Nomuraea rileyi*
 560 *Beauveria bassiana*
 563 *Conidiobolus coronatus*
 564 *Conidiobolus* sp.
 565 *Conidiobolus coronatus*
 566 *Beauveria bassiana*
 567 *Conidiobolus coronatus*
 568 *Hirsutella* sp.
 569 *Gibellula* sp.
 570 *Gibellula* sp.
 572 *Tilletiopsis* sp.
 573 *Tilletiopsis* sp.
 575 *Pandora delphacis*
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 577 *Paecilomyces reniformis*
 579 *Pandora delphacis*
 580 *Pandora delphacis*
 581 *Entomophaga australiensis*
 582 *Culicinomyces clavisporus*
 583 *Culicinomyces clavisporus*
 584 *Culicinomyces clavisporus*
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 587 *Metarhizium anisopliae*
 588 *Metarhizium anisopliae*
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 593 *Pandora delphacis*
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 596 *Conidiobolus* sp.
 597 *Conidiobolus coronatus*
 598 *Conidiobolus* nr. *coronatus*
 599 *Conidiobolus* nr. *coronatus*
 600 *Conidiobolus* nr. *coronatus*
 602 *Conidiobolus* nr. *coronatus*
 603 *Pandora delphacis*
 604 *Conidiobolus* sp.
 605 *Conidiobolus* sp.
 606 *Conidiobolus* sp.
 608 *Pandora neoaphidis*
 609 *Pandora neoaphidis*
 610 *Pandora neoaphidis*
 611 *Pandora neoaphidis*
 612 *Pandora neoaphidis*
 613 *Pandora neoaphidis*
 614 *Pandora neoaphidis*
 616 *Tolypocladium niveum*
 617 *Beauveria brongniartii*
 618 *Entomophaga macleodii*
 619 *Entomophaga macleodii*
 620 *Entomophaga macleodii*
 621 *Entomophaga macleodii*
 623 *Entomophaga calopteni*
 624 *Entomophaga macleodii*
 625 *Entomophaga calopteni*
 626 *Entomophaga calopteni*
 627 *Entomophaga tabanivora*
 628 *Entomophaga macleodii*
 629 *Entomophaga macleodii*
 630 *Conidiobolus thromboides*
 631 *Conidiobolus thromboides*
 632 *Conidiobolus thromboides*
 633 *Conidiobolus thromboides*
 634 *Conidiobolus thromboides*
 635 *Conidiobolus thromboides*
 636 *Pandora neoaphidis*
 637 *Pandora neoaphidis*
 638 *Pandora neoaphidis*
 639 *Pandora neoaphidis*
 640 *Eryniopsis caroliniana*
 641 *Eryniopsis caroliniana*
 642 *Eryniopsis caroliniana*
 644 *Culicinomyces clavisporus*
 645 *Culicinomyces clavisporus*
 646 *Entomophaga calopteni*
 648 *Paecilomyces farinosus*
 649 *Conidiobolus thromboides*
 650 *Macrobiotophthora vermicola*
 651 *Entomophthora muscae*
 652 *Beauveria bassiana*
 653 *Trichothecium* sp.
 654 *Beauveria bassiana*
 655 *Conidiobolus coronatus*
 656 *Beauveria brongniartii*
 657 *Pandora delphacis*
 659 *Pandora delphacis*
 660 *Pandora delphacis*
 662 *Neozygites* sp.
 663 *Furia ithacensis*
 665 *Pandora delphacis*
 666 *Pandora delphacis*
 667 *Pandora delphacis*
 668 *Pandora delphacis*
 669 *Pandora delphacis*
 670 *Pandora delphacis*
 672 *Pandora delphacis*
 673 *Pandora delphacis*
 674 *Pandora delphacis*
 676 *Pandora delphacis*
 678 *Beauveria brongniartii*
 679 *Beauveria bassiana*
 680 *Paecilomyces* sp.
 681 *Beauveria bassiana*
 682 *Pandora delphacis*
 683 *Metarhizium anisopliae*
 684 *Hirsutella citriformis*
 685 *Zoopthora radicans*
 686 *Pandora delphacis*
 687 *Fusarium* sp.
 689 *Ascospaera aggregata*
 690 *Ascospaera aggregata*
 691 *Ascospaera apis*
 692 *Ascospaera apis*
 693 *Ascospaera atra*
 694 *Ascospaera major*
 695 *Ascospaera proliperda*
 696 *Ascospaera proliperda*
 697 *Paecilomyces farinosus*
 698 *Pandora delphacis*
 700 *Conidiobolus lachnodes*
 703 *Metarhizium anisopliae*
 705 *Tolypocladium cylindrosporum*
 706 *Culicinomyces clavisporus*
 707 *Entomophthora muscae*
 708 *Beauveria bassiana*
 709 *Beauveria bassiana*
 711 *Nomuraea rileyi*
 712 *Metarhizium anisopliae*
 713 *Pandora delphacis*
 714 *Beauveria bassiana*
 716 *Pandora delphacis*
 717 *Beauveria bassiana*
 718 *Beauveria bassiana*
 719 *Beauveria bassiana*
 720 *Paecilomyces javanicus*
 721 *Beauveria bassiana*
 722 *Paecilomyces fumosoroseus*
 723 *Paecilomyces fumosoroseus*
 724 *Metarhizium anisopliae*
 725 *Metarhizium anisopliae*
 727 *Metarhizium anisopliae*
 728 *Metarhizium anisopliae*
 729 *Metarhizium anisopliae*
 730 *Beauveria bassiana*
 731 *Beauveria bassiana*
 732 *Beauveria bassiana*
 733 *Beauveria bassiana*
 734 *Beauveria bassiana*
 735 *Beauveria bassiana*
 736 *Beauveria bassiana*
 737 *Beauveria bassiana*
 738 *Beauveria bassiana*
 739 *Beauveria bassiana*
 741 *Paecilomyces* sp.
 742 *Furia americana*
 743 *Entomophaga australiensis*
 744 *Paecilomyces fumosoroseus*
 748 *Lagenidium giganteum*
 749 *Lagenidium giganteum*
 750 *Erynia aquatica*
 751 *Beauveria bassiana*
 752 *Beauveria bassiana*
 753 *Beauveria bassiana*
 754 *Beauveria bassiana*
 755 *Metarhizium anisopliae*
 756 *Beauveria bassiana*
 757 *Beauveria bassiana*
 758 *Beauveria bassiana*
 759 *Metarhizium anisopliae*
 760 *Metarhizium anisopliae*
 762 *Nomuraea rileyi*
 763 *Paecilomyces farinosus*
 764 *Erynia aquatica*
 765 *Entomophaga macleodii*
 766 *Entomophaga calopteni*
 767 *Entomophaga macleodii*
 768 *Entomophaga macleodii*
 769 *Entomophaga macleodii*
 770 *Entomophaga macleodii*
 771 *Entomophaga macleodii*
 772 *Entomophaga macleodii*
 773 *Entomophaga macleodii*
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 775 *Entomophaga macleodii*
 776 *Entomophaga macleodii*
 777 *Entomophaga macleodii*
 778 *Entomophaga macleodii*
 779 *Entomophaga macleodii*
 781 *Furia pieris*
 782 *Metarhizium anisopliae*
 783 *Beauveria bassiana*
 784 *Beauveria bassiana*
 785 *Beauveria bassiana*
 786 *Beauveria bassiana*
 787 *Beauveria bassiana*
 788 *Beauveria bassiana*
 789 *Zoopthora radicans*
 790 *Zoopthora radicans*
 791 *Entomophaga australiensis*
 792 *Beauveria bassiana*
 793 *Beauveria bassiana*
 794 *Metarhizium anisopliae*
 795 *Verticillium lecanii*

- 796 *Beauveria bassiana*
797 *Metarhizium anisopliae*
798 *Metarhizium anisopliae*
799 *Paecilomyces farinosus*
800 *Zoophthora radicans*
801 *Erynia rhizospora*
802 *Erynia curvispora*
803 *Entomophthora muscae*
804 *Beauveria bassiana*
805 *Beauveria bassiana*
806 *Beauveria bassiana*
807 *Paecilomyces viridis*
808 *Metarhizium anisopliae*
809 *Beauveria bassiana*
810 *Verticillium lecanii*
811 *Verticillium lecanii*
812 *Beauveria bassiana*
813 *Beauveria bassiana*
814 *Beauveria bassiana*
815 *Beauveria bassiana*
816 *Beauveria bassiana*
817 *Metarhizium anisopliae*
818 *Metarhizium anisopliae*
819 *Metarhizium anisopliae*
820 *Metarhizium anisopliae*
821 *Fusarium coccophillum*
822 *Zoophthora radicans*
823 *Zoophthora radicans*
824 *Conidiobolus obscurus*
825 *Pandora kondoiensis*
826 *Entomophthora muscae*
827 *Pandora neoaphidis*
828 *Pandora kondoiensis*
829 *Pandora neoaphidis*
830 *Pandora neoaphidis*
831 *Pandora neoaphidis*
832 *Conidiobolus obscurus*
833 *Pandora neoaphidis*
834 *Conidiobolus obscurus*
835 *Pandora neoaphidis*
836 *Pandora neoaphidis*
837 *Pandora kondoiensis*
838 *Pandora neoaphidis*
839 *Conidiobolus obscurus*
840 *Entomophaga praxibuli*
841 *Tolypocladium cylindrosporum*
842 *Beauveria bassiana*
843 *Beauveria bassiana*
844 *Metarhizium anisopliae*
845 *Metarhizium anisopliae*
846 *Metarhizium anisopliae*
847 *Metarhizium anisopliae*
848 *Metarhizium anisopliae*
849 *Metarhizium anisopliae*
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868 *Metarhizium anisopliae*
869 *Metarhizium anisopliae*
870 *Metarhizium anisopliae*
871 *Metarhizium anisopliae*
872 *Metarhizium anisopliae*
873 *Metarhizium anisopliae*
874 *Metarhizium anisopliae*
875 *Metarhizium anisopliae*
876 *Erynia* sp.
878 *Hirsutella guyana*
879 *Hirsutella guyana*
880 *Erynia* sp.
881 *Hirsutella guyana*
882 *Hirsutella guyana*
883 *Hirsutella guyana*
884 *Erynia* sp.
886 *Beauveria bassiana*
887 *Paecilomyces fumosoroseus*
889 *Metarhizium anisopliae*
890 *Metarhizium anisopliae*
891 *Metarhizium anisopliae*
892 *Metarhizium anisopliae*
893 *Metarhizium anisopliae*
894 *Metarhizium anisopliae*
895 *Metarhizium anisopliae*
896 *Metarhizium anisopliae*
897 *Metarhizium anisopliae*
898 *Metarhizium anisopliae*
899 *Zoophthora radicans*
900 *Verticillium lecanii*
901 *Metarhizium anisopliae*
902 *Metarhizium anisopliae*
903 *Metarhizium anisopliae*
904 *Metarhizium anisopliae*
905 *Metarhizium anisopliae*
906 *Metarhizium anisopliae*
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910 *Metarhizium anisopliae*
911 *Metarhizium anisopliae*
912 *Metarhizium anisopliae*
913 *Metarhizium anisopliae*
914 *Zoophthora radicans*
915 *Pandora blunckii*
916 *Zoophthora anglica*
917 *Pandora blunckii*
919 *Batkoa apiculata*
920 *Pandora blunckii*
921 *Metarhizium anisopliae*
922 *Metarhizium anisopliae*
923 *Verticillium fusisporum*
925 *Metarhizium anisopliae* var. *anisopliae*
926 *Zoophthora anglica*
927 *Batkoa apiculata*
928 *Beauveria bassiana*
929 *Metarhizium anisopliae*
930 *Beauveria bassiana*
931 *Beauveria bassiana*
932 *Metarhizium anisopliae*
933 *Beauveria bassiana*
934 *Beauveria bassiana*
935 *Nomuraea rileyi*
936 *Nomuraea rileyi*
937 *Beauveria bassiana*
938 *Beauveria bassiana*
939 *Metarhizium anisopliae*
941 *Beauveria bassiana*
942 *Beauveria bassiana*
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949 *Beauveria bassiana*
950 *Beauveria bassiana*
951 *Beauveria bassiana*
952 *Beauveria bassiana*
953 *Beauveria bassiana*
954 *Metarhizium anisopliae*
955 *Metarhizium anisopliae*
956 *Beauveria bassiana*
957 *Beauveria bassiana*
958 *Beauveria bassiana*
959 *Beauveria bassiana*
960 *Metarhizium anisopliae*
961 *Tolypocladium cylindrosporum*
962 *Tolypocladium cylindrosporum*
963 *Tolypocladium cylindrosporum*
964 *Culicinomyces clavisporus*
965 *Metarhizium anisopliae*
966 *Metarhizium anisopliae*
967 *Metarhizium anisopliae*
968 *Metarhizium anisopliae*
970 *Hirsutella* sp.
971 *Paecilomyces* sp.
972 *Verticillium lecanii*
973 *Verticillium lecanii*
974 *Verticillium lecanii*
975 *Paecilomyces farinosus*
976 *Tolypocladium cylindrosporum*
977 *Metarhizium anisopliae*
978 *Metarhizium anisopliae* var. *majus*
979 *Beauveria brongniartii*
980 *Verticillium lecanii*
981 *Paecilomyces farinosus*
982 *Beauveria bassiana*
983 *Erynia* sp.
984 *Paecilomyces canadensis*
985 *Beauveria brongniartii*
986 *Paecilomyces lilacinus*
988 *Metarhizium anisopliae* var. *majus*
989 *Paecilomyces fumosoroseus*
990 *Paecilomyces canadensis*
991 *Verticillium lecanii*
992 *Aschersonia aleyrodii*
993 *Pandora neoaphidis*
994 *Verticillium lecanii*
996 *Hirsutella satumaensis*
997 *Conidiobolus coronatus*
998 *Entomophaga aulicae*
999 *Entomophthora* sp.
1000 *Pandora blunckii*
1001 *Beauveria bassiana*
1002 *Verticillium lecanii*
1003 *Aspergillus flavus*
1004 *Pandora blunckii*
1005 *Paecilomyces fumosoroseus*
1006 *Conidiobolus thromboides*
1007 *Beauveria bassiana*
1008 *Paecilomyces* sp.
1009 *Metarhizium anisopliae*
1010 *Aspergillus flavus*
1011 *Metarhizium anisopliae*
1013 Unidentified
1014 *Nomuraea rileyi*

1015	<i>Metarhizium anisopliae</i> var. <i>majus</i>	1088	<i>Metarhizium anisopliae</i>	1165	<i>Beauveria bassiana</i>
1016	<i>Beauveria bassiana</i>	1089	<i>Metarhizium anisopliae</i>	1166	<i>Beauveria bassiana</i>
1017	<i>Beauveria bassiana</i>	1090	<i>Metarhizium anisopliae</i>	1167	<i>Beauveria bassiana</i>
1018	<i>Zoophthora radicans</i>	1091	<i>Metarhizium anisopliae</i>	1168	<i>Beauveria bassiana</i>
1019	<i>Zoophthora radicans</i>	1092	<i>Metarhizium anisopliae</i> var. <i>majus</i>	1169	<i>Beauveria bassiana</i>
1020	<i>Zoophthora radicans</i>	1093	<i>Metarhizium anisopliae</i> var. <i>majus</i>	1170	<i>Beauveria bassiana</i>
1021	<i>Zoophthora radicans</i>	1094	<i>Metarhizium anisopliae</i>	1171	<i>Beauveria bassiana</i>
1022	<i>Metarhizium anisopliae</i>	1095	<i>Metarhizium anisopliae</i>	1172	<i>Beauveria bassiana</i>
1023	<i>Metarhizium anisopliae</i>	1096	<i>Hirsutella</i> sp.	1173	<i>Beauveria bassiana</i>
1024	<i>Metarhizium anisopliae</i>	1097	<i>Metarhizium anisopliae</i>	1174	<i>Beauveria bassiana</i>
1025	<i>Metarhizium anisopliae</i>	1098	<i>Beauveria bassiana</i>	1175	<i>Beauveria bassiana</i>
1026	<i>Verticillium lecanii</i>	1099	<i>Metarhizium flavoviride</i> var. <i>minus</i>	1176	<i>Beauveria bassiana</i>
1027	<i>Tolypocladium cylindrosporum</i>	1100	<i>Zoophthora radicans</i>	1177	<i>Beauveria bassiana</i>
1028	<i>Tolypocladium cylindrosporum</i>	1101	<i>Pandora delphacis</i>	1178	<i>Beauveria bassiana</i>
1029	<i>Verticillium lecanii</i>	1102	<i>Verticillium lecanii</i>	1179	<i>Beauveria bassiana</i>
1030	<i>Aschersonia turbinata</i>	1103	<i>Beauveria bassiana</i>	1180	<i>Beauveria bassiana</i>
1032	<i>Verticillium lecanii</i>	1104	<i>Beauveria bassiana</i>	1181	<i>Beauveria bassiana</i>
1033	<i>Verticillium lecanii</i>	1105	<i>Beauveria bassiana</i>	1182	<i>Beauveria bassiana</i>
1034	<i>Hirsutella versicolor</i>	1106	<i>Beauveria bassiana</i>	1183	<i>Beauveria bassiana</i>
1035	<i>Hirsutella citrifomis</i>	1107	<i>Beauveria bassiana</i>	1184	<i>Metarhizium flavoviride</i>
1036	<i>Hirsutella citrifomis</i>	1108	<i>Paecilomyces farinosus</i>	1185	<i>Beauveria bassiana</i>
1037	<i>Hirsutella versicolor</i>	1109	<i>Verticillium lecanii</i>	1186	<i>Beauveria bassiana</i>
1038	<i>Beauveria bassiana</i>	1110	<i>Beauveria bassiana</i>	1187	<i>Metarhizium anisopliae</i>
1039	<i>Beauveria bassiana</i>	1111	<i>Paecilomyces farinosus</i>	1188	<i>Beauveria bassiana</i>
1040	<i>Beauveria</i> sp.	1112	<i>Metarhizium anisopliae</i>	1189	<i>Beauveria bassiana</i>
1041	<i>Beauveria bassiana</i>	1113	<i>Beauveria bassiana</i>	1190	<i>Beauveria bassiana</i>
1042	<i>Paecilomyces farinosus</i>	1114	<i>Beauveria bassiana</i>	1191	<i>Beauveria bassiana</i>
1043	<i>Paecilomyces farinosus</i>	1115	<i>Beauveria bassiana</i>	1192	<i>Beauveria bassiana</i>
1044	<i>Metarhizium anisopliae</i>	1116	<i>Metarhizium anisopliae</i>	1193	<i>Beauveria bassiana</i>
1045	<i>Metarhizium anisopliae</i>	1117	<i>Beauveria bassiana</i>	1194	<i>Beauveria bassiana</i>
1046	<i>Metarhizium anisopliae</i>	1118	<i>Beauveria bassiana</i>	1195	<i>Beauveria</i> sp.
1047	<i>Nomuraea rileyi</i>	1119	<i>Beauveria bassiana</i>	1196	<i>Beauveria</i> sp.
1048	<i>Zoophthora radicans</i>	1120	<i>Metarhizium anisopliae</i>	1197	<i>Beauveria</i> sp.
1050	<i>Zoophthora radicans</i>	1121	<i>Beauveria bassiana</i>	1198	<i>Beauveria</i> sp.
1051	Unidentified	1122	<i>Beauveria bassiana</i>	1199	<i>Beauveria</i> sp.
1052	<i>Erynia</i> sp.	1123	<i>Sorospora uvella</i>	1200	<i>Beauveria</i> sp.
1053	<i>Beauveria bassiana</i>	1124	<i>Pandora delphacis</i>	1201	<i>Beauveria</i> sp.
1054	<i>Beauveria bassiana</i>	1125	<i>Zoophthora radicans</i>	1202	<i>Beauveria</i> sp.
1055	<i>Metarhizium anisopliae</i>	1126	<i>Entomophaga</i> sp.	1203	<i>Beauveria</i> sp.
1056	<i>Metarhizium anisopliae</i>	1129	<i>Furia virescens</i>	1204	<i>Beauveria</i> sp.
1057	<i>Metarhizium anisopliae</i>	1130	<i>Zoophthora radicans</i>	1205	<i>Beauveria</i> sp.
1058	<i>Paecilomyces farinosus</i>	1131	<i>Conidiobolus obscurus</i>	1206	<i>Beauveria</i> sp.
1059	<i>Metarhizium anisopliae</i>	1132	<i>Pandora delphacis</i>	1207	<i>Beauveria</i> sp.
1060	<i>Beauveria bassiana</i>	1133	<i>Pandora delphacis</i>	1208	<i>Beauveria</i> sp.
1061	<i>Beauveria bassiana</i>	1134	<i>Pandora neoaphidis</i>	1209	<i>Beauveria</i> sp.
1062	<i>Hirsutella citrifomis</i>	1136	<i>Zoophthora radicans</i>	1210	<i>Beauveria</i> sp.
1063	<i>Hirsutella citrifomis</i>	1137	<i>Pandora neoaphidis</i>	1211	<i>Beauveria</i> sp.
1064	<i>Hirsutella citrifomis</i>	1139	<i>Basidiobolus ranarum</i>	1212	<i>Trichothecium roseum</i>
1065	<i>Paecilomyces farinosus</i>	1140	<i>Entomophaga aulicae</i>	1213	<i>Beauveria</i> sp.
1066	<i>Metarhizium anisopliae</i>	1143	<i>Erynia</i> sp.	1214	<i>Beauveria</i> sp.
1067	<i>Beauveria brongniartii</i>	1145	<i>Furia neopyralidarum</i>	1215	<i>Beauveria</i> sp.
1068	<i>Beauveria brongniartii</i>	1146	<i>Conidiobolus obscurus</i>	1216	<i>Beauveria</i> sp.
1069	<i>Beauveria brongniartii</i>	1147	<i>Conidiobolus coronatus</i>	1217	<i>Trichothecium</i> sp.
1070	<i>Beauveria brongniartii</i>	1148	<i>Fusarium solani</i>	1218	<i>Beauveria</i> sp.
1071	<i>Beauveria brongniartii</i>	1149	<i>Beauveria bassiana</i>	1219	<i>Beauveria</i> sp.
1072	<i>Beauveria brongniartii</i>	1150	<i>Beauveria bassiana</i>	1220	<i>Beauveria</i> sp.
1073	<i>Beauveria bassiana</i>	1151	<i>Beauveria bassiana</i>	1221	<i>Beauveria</i> sp.
1074	<i>Beauveria bassiana</i>	1152	<i>Aspergillus</i> sp.	1222	<i>Beauveria</i> sp.
1075	<i>Beauveria bassiana</i>	1153	<i>Beauveria bassiana</i>	1223	<i>Trichothecium</i> sp.
1076	<i>Beauveria brongniartii</i>	1154	<i>Beauveria bassiana</i>	1224	<i>Beauveria</i> sp.
1077	<i>Beauveria brongniartii</i>	1155	<i>Beauveria bassiana</i>	1225	<i>Paecilomyces farinosus</i>
1079	<i>Beauveria bassiana</i>	1156	<i>Beauveria bassiana</i>	1226	<i>Trichothecium roseum</i>
1080	<i>Metarhizium anisopliae</i>	1157	<i>Beauveria bassiana</i>	1227	<i>Zoophthora radicans</i>
1081	<i>Beauveria bassiana</i>	1158	<i>Beauveria bassiana</i>	1228	<i>Zoophthora radicans</i>
1082	<i>Zoophthora radicans</i>	1159	<i>Beauveria bassiana</i>	1229	<i>Zoophthora radicans</i>
1083	<i>Metarhizium anisopliae</i>	1160	<i>Beauveria bassiana</i>	1230	<i>Entomophaga</i> sp.
1084	<i>Metarhizium anisopliae</i>	1161	<i>Beauveria bassiana</i>	1231	<i>Zoophthora radicans</i>
1085	<i>Metarhizium anisopliae</i>	1162	<i>Beauveria bassiana</i>	1232	<i>Zoophthora radicans</i>
1086	<i>Metarhizium anisopliae</i>	1163	<i>Beauveria bassiana</i>	1233	<i>Zoophthora radicans</i>
1087	<i>Metarhizium anisopliae</i>	1164	<i>Beauveria bassiana</i>	1234	<i>Zoophthora radicans</i>

- 1236 *Zoophthora radicans*
1237 *Zoophthora radicans*
1238 *Pandora delphacis*
1239 *Zoophthora radicans*
1240 *Furia americana*
1241 *Erynia* sp.
1242 *Furia americana*
1243 *Hirsutella citriformis*
1244 *Hirsutella citriformis*
1245 *Hirsutella citriformis*
1246 *Hirsutella citriformis*
1247 *Hirsutella citriformis*
1248 *Hirsutella citriformis*
1249 *Hirsutella citriformis*
1250 *Hirsutella citriformis*
1251 *Hirsutella citriformis*
1252 *Hirsutella citriformis*
1253 *Hirsutella citriformis*
1254 *Hirsutella citriformis*
1255 *Hirsutella citriformis*
1256 *Hirsutella citriformis*
1257 *Hirsutella citriformis*
1258 *Hirsutella citriformis*
1259 *Hirsutella citriformis*
1260 *Culicinomyces clavisporus*
1261 *Zoophthora radicans*
1262 *Zoophthora radicans*
1263 *Zoophthora radicans*
1264 *Pandora delphacis*
1265 *Pandora delphacis*
1266 *Erynia* sp.
1267 *Erynia* sp.
1268 *Pandora delphacis*
1269 *Beauveria bassiana*
1270 *Beauveria bassiana*
1271 *Metarhizium flavoviride* var. minus
1272 *Metarhizium flavoviride* var. minus
1273 *Metarhizium flavoviride* var. minus
1274 *Metarhizium flavoviride* var. minus
1275 *Metarhizium flavoviride* var. minus
1276 *Metarhizium flavoviride* var. minus
1277 *Metarhizium flavoviride* var. minus
1278 *Metarhizium anisopliae*
1279 *Metarhizium flavoviride* var. minus
1280 *Metarhizium anisopliae*
1281 *Metarhizium anisopliae*
1282 *Metarhizium anisopliae*
1283 *Metarhizium flavoviride* var. minus
1284 *Metarhizium anisopliae*
1285 *Metarhizium anisopliae*
1286 *Metarhizium anisopliae*
1287 *Metarhizium flavoviride* var. minus
1288 *Metarhizium flavoviride* var. minus
1289 *Metarhizium flavoviride* var. minus
1290 *Metarhizium anisopliae*
1291 *Metarhizium flavoviride* var. minus
1292 *Metarhizium flavoviride* var. minus
1293 *Metarhizium flavoviride* var. minus
1294 *Metarhizium flavoviride* var. minus
1295 *Metarhizium flavoviride* var. minus
1296 *Metarhizium flavoviride* var. minus
1297 *Metarhizium flavoviride* var. minus
1298 *Metarhizium anisopliae*
1299 *Metarhizium anisopliae*
1300 *Metarhizium anisopliae*
1301 *Metarhizium flavoviride* var. minus
1302 *Metarhizium flavoviride* var. minus
1303 *Metarhizium flavoviride* var. minus
1304 *Metarhizium anisopliae*
1305 *Metarhizium flavoviride* var. minus
1306 *Beauveria bassiana*
1307 *Fusarium* sp.
1308 *Trichothecium roseum*
1309 *Beauveria bassiana*
1310 *Fusarium* sp.
1311 *Beauveria bassiana*
1312 *Beauveria bassiana*
1313 *Beauveria bassiana*
1314 *Beauveria bassiana*
1315 *Beauveria bassiana*
1316 *Beauveria bassiana*
1317 *Beauveria bassiana*
1318 *Beauveria bassiana*
1319 *Beauveria bassiana*
1320 *Beauveria bassiana*
1321 *Beauveria bassiana*
1322 *Beauveria bassiana*
1323 *Beauveria bassiana*
1324 *Beauveria bassiana*
1325 *Beauveria bassiana*
1326 *Beauveria bassiana*
1327 *Beauveria* sp.
1328 *Verticillium lecanii*
1329 *Aphanocladium album*
1330 *Verticillium lecanii*
1331 *Fusarium lateritium*
1332 *Verticillium lecanii*
1333 *Verticillium lecanii*
1334 *Verticillium lecanii*
1335 *Verticillium lecanii*
1336 *Zoophthora radicans*
1337 *Zoophthora radicans*
1338 *Erynia* sp.
1339 *Furia ithacensis*
1340 *Furia ithacensis*
1341 *Zoophthora radicans*
1342 *Zoophthora radicans*
1343 *Zoophthora radicans*
1344 *Zoophthora radicans*
1345 *Zoophthora radicans*
1346 *Zoophthora radicans*
1347 *Basidiobolus haptospora*
1348 *Paecilomyces farinosus*
1349 *Paecilomyces farinosus*
1350 *Zoophthora radicans*
1351 *Verticillium lecanii*
1352 *Verticillium lecanii*
1353 *Sterile mycelium*
1354 *Paecilomyces farinosus*
1355 *Paecilomyces farinosus*
1356 Unidentified
1357 *Verticillium lecanii*
1358 *Paecilomyces farinosus*
1359 *Beauveria bassiana*
1360 *Beauveria brongniartii*
1361 *Trichoderma* sp.
1362 *Hirsutella* nr. *haptosporus*
1363 *Hirsutella* nr. *haptosporus*
1364 *Hirsutella* nr. *haptosporus*
1365 *Verticillium* nr. *cephalosporium*
1366 *Beauveria brongniartii*
1367 *Verticillium lecanii*
1369 *Hirsutella radiata*
1371 *Fusarium oxysporum*
1372 *Acremonium furcatum*
1373 *Metarhizium anisopliae*
1374 *Metarhizium anisopliae*
1375 *Metarhizium anisopliae*
1376 *Metarhizium anisopliae*
1377 *Metarhizium anisopliae*
1378 *Metarhizium anisopliae*
1379 *Metarhizium anisopliae*
1380 *Metarhizium anisopliae*
1382 *Metarhizium anisopliae*
1383 *Metarhizium anisopliae* var. *majus*
1384 *Lagenidium giganteum*
1386 *Metarhizium anisopliae*
1387 *Metarhizium anisopliae*
1388 *Metarhizium anisopliae*
1389 *Beauveria bassiana*
1390 *Entomophaga maimaiga*
1391 *Entomophaga maimaiga*
1392 *Entomophaga maimaiga*
1393 *Entomophaga asiatica*
1394 *Beauveria bassiana*
1395 *Beauveria bassiana*
1396 *Beauveria bassiana*
1397 *Beauveria bassiana*
1398 *Beauveria bassiana*
1399 *Beauveria bassiana*
1400 *Entomophaga maimaiga*
1401 *Verticillium* sp.
1402 *Verticillium* sp.
1403 *Verticillium* sp.
1404 *Beauveria bassiana*
1405 *Beauveria bassiana*
1406 *Beauveria bassiana*
1407 *Beauveria bassiana*
1408 *Beauveria bassiana*
1409 *Beauveria bassiana*
1410 *Beauveria bassiana*
1411 *Beauveria bassiana*
1412 *Beauveria bassiana*
1413 *Beauveria bassiana*
1414 *Beauveria bassiana*
1415 Unidentified
1416 *Fusarium lateritium*
1417 Unidentified
1419 Unidentified
1420 Unidentified
1421 Unidentified
1422 *Pandora dipterigena*
1423 Unidentified
1424 *Polycephalomyces formosus*
1425 *Tritirachium isariae*
1426 *Conidiobolus* sp.
1427 *Batkoa major*
1428 *Zoophthora radicans*
1431 *Beauveria brongniartii*
1432 *Metarhizium anisopliae*
1435 *Metarhizium anisopliae*
1436 *Hirsutella citriformis*
1439 *Erynia conica*
1440 *Erynia rhizospora*
1441 *Erynia rhizospora*
1442 *Erynia rhizospora*
1443 *Erynia rhizospora*
1444 *Conidiobolus* sp.
1445 *Conidiobolus* sp.
1446 *Hirsutella citriformis*
1448 *Metarhizium anisopliae* var. *anisopliae*
1449 *Metarhizium anisopliae* var. *anisopliae*
1450 *Beauveria bassiana*
1453 *Beauveria bassiana*
1454 *Beauveria bassiana*
1455 *Beauveria bassiana*
1456 *Beauveria bassiana*
1457 *Beauveria bassiana*

1458	<i>Beauveria bassiana</i>	1530	<i>Paecilomyces fumosoroseus</i>	1604	<i>Pandora neoaphidis</i>
1459	<i>Beauveria bassiana</i>	1531	<i>Beauveria bassiana</i>	1605	<i>Pandora neoaphidis</i>
1460	<i>Beauveria bassiana</i>	1532	<i>Paecilomyces fumosoroseus</i>	1606	<i>Pandora neoaphidis</i>
1461	<i>Beauveria bassiana</i>	1533	<i>Beauveria bassiana</i>	1607	<i>Pandora neoaphidis</i>
1462	<i>Beauveria bassiana</i>	1534	<i>Beauveria bassiana</i>	1609	<i>Pandora neoaphidis</i>
1463	<i>Beauveria bassiana</i>	1535	<i>Beauveria bassiana</i>	1610	<i>Pandora neoaphidis</i>
1464	<i>Beauveria bassiana</i>	1536	<i>Beauveria bassiana</i>	1611	<i>Pandora neoaphidis</i>
1465	<i>Beauveria bassiana</i>	1537	<i>Beauveria bassiana</i>	1612	<i>Pandora neoaphidis</i>
1466	<i>Beauveria bassiana</i>	1538	<i>Beauveria bassiana</i>	1613	<i>Pandora neoaphidis</i>
1467	<i>Beauveria bassiana</i>	1539	<i>Beauveria bassiana</i>	1615	<i>Pandora neoaphidis</i>
1468	<i>Beauveria bassiana</i>	1540	<i>Beauveria bassiana</i>	1616	<i>Pandora neoaphidis</i>
1469	<i>Beauveria bassiana</i>	1541	<i>Zoophthora radicans</i>	1617	<i>Pandora neoaphidis</i>
1470	<i>Beauveria bassiana</i>	1542	<i>Zoophthora radicans</i>	1618	<i>Pandora neoaphidis</i>
1471	<i>Beauveria bassiana</i>	1543	<i>Zoophthora radicans</i>	1619	<i>Beauveria bassiana</i>
1472	<i>Beauveria bassiana</i>	1544	<i>Zoophthora radicans</i>	1620	<i>Beauveria bassiana</i>
1473	<i>Beauveria bassiana</i>	1545	<i>Metarhizium anisopliae</i>	1621	<i>Beauveria bassiana</i>
1474	<i>Beauveria bassiana</i>	1546	<i>Metarhizium flavoviride</i> var. minus	1622	<i>Beauveria bassiana</i>
1475	<i>Beauveria bassiana</i>	1547	<i>Metarhizium flavoviride</i> var. minus	1623	<i>Beauveria bassiana</i>
1476	<i>Beauveria bassiana</i>	1548	<i>Metarhizium anisopliae</i>	1624	<i>Beauveria bassiana</i>
1477	<i>Conidiobolus</i> sp.	1549	<i>Hirsutella citriformis</i>	1625	<i>Hirsutella</i> sp.
1478	<i>Beauveria bassiana</i>	1550	<i>Hirsutella citriformis</i>	1626	<i>Paecilomyces fumosoroseus</i>
1479	<i>Beauveria bassiana</i>	1551	<i>Hirsutella</i> sp.	1627	<i>Beauveria bassiana</i>
1480	<i>Beauveria bassiana</i>	1552	<i>Paecilomyces lilacinus</i>	1628	<i>Beauveria bassiana</i>
1483	<i>Beauveria bassiana</i>	1553	<i>Beauveria bassiana</i>	1629	<i>Beauveria bassiana</i>
1484	<i>Beauveria bassiana</i>	1554	<i>Beauveria bassiana</i>	1630	<i>Beauveria bassiana</i>
1485	<i>Conidiobolus</i> sp.	1555	<i>Beauveria bassiana</i>	1634	Unidentified
1486	<i>Conidiobolus</i> sp.	1556	<i>Beauveria bassiana</i>	1635	<i>Beauveria bassiana</i>
1487	<i>Conidiobolus</i> sp.	1558	<i>Beauveria bassiana</i>	1636	<i>Beauveria bassiana</i>
1488	<i>Conidiobolus</i> sp.	1559	<i>Beauveria bassiana</i>	1637	<i>Beauveria bassiana</i>
1489	<i>Metarhizium anisopliae</i>	1560	<i>Beauveria bassiana</i>	1638	<i>Beauveria bassiana</i>
1490	<i>Metarhizium anisopliae</i>	1561	<i>Beauveria bassiana</i>	1639	<i>Trichothecium roseum</i>
1491	<i>Beauveria bassiana</i>	1562	<i>Beauveria bassiana</i>	1640	<i>Beauveria bassiana</i>
1492	<i>Zoophthora radicans</i>	1563	<i>Beauveria bassiana</i>	1641	<i>Fusarium</i> sp.
1493	<i>Zoophthora radicans</i>	1564	<i>Beauveria bassiana</i>	1642	<i>Trichothecium roseum</i>
1494	<i>Zoophthora radicans</i>	1565	<i>Beauveria bassiana</i>	1643	<i>Beauveria bassiana</i>
1495	<i>Zoophthora radicans</i>	1566	<i>Beauveria bassiana</i>	1644	<i>Paecilomyces fumosoroseus</i>
1496	<i>Zoophthora radicans</i>	1567	<i>Beauveria bassiana</i>	1645	<i>Paecilomyces fumosoroseus</i>
1497	<i>Zoophthora radicans</i>	1568	<i>Paecilomyces fumosoroseus</i>	1646	<i>Paecilomyces fumosoroseus</i>
1498	<i>Zoophthora radicans</i>	1569	<i>Paecilomyces fumosoroseus</i>	1647	<i>Beauveria bassiana</i>
1499	<i>Zoophthora radicans</i>	1570	<i>Pandora neoaphidis</i>	1648	<i>Beauveria bassiana</i>
1500	<i>Zoophthora radicans</i>	1572	<i>Conidiobolus coronatus</i>	1649	<i>Beauveria bassiana</i>
1501	<i>Zoophthora radicans</i>	1573	<i>Conidiobolus coronatus</i>	1650	<i>Beauveria bassiana</i>
1502	<i>Zoophthora radicans</i>	1574	<i>Conidiobolus coronatus</i>	1651	<i>Beauveria bassiana</i>
1503	<i>Zoophthora radicans</i>	1575	<i>Conidiobolus coronatus</i>	1652	<i>Beauveria bassiana</i>
1504	<i>Zoophthora radicans</i>	1576	<i>Paecilomyces fumosoroseus</i>	1653	<i>Beauveria bassiana</i>
1505	<i>Verticillium lecanii</i>	1577	<i>Paecilomyces fumosoroseus</i>	1654	<i>Beauveria bassiana</i>
1506	<i>Paecilomyces fumosoroseus</i>	1578	<i>Paecilomyces fumosoroseus</i>	1655	<i>Entomophaga aulicae</i>
1507	<i>Paecilomyces farinosus</i>	1579	<i>Paecilomyces fumosoroseus</i>	1656	<i>Entomophaga aulicae</i>
1508	<i>Paecilomyces farinosus</i>	1580	<i>Tolypocladium cylindrosporum</i>	1657	<i>Entomophaga aulicae</i>
1509	<i>Beauveria bassiana</i>	1581	<i>Zoophthora radicans</i>	1658	<i>Entomophaga maimaiga</i>
1510	<i>Beauveria bassiana</i>	1582	<i>Zoophthora radicans</i>	1659	<i>Entomophaga asiatica</i>
1511	<i>Beauveria bassiana</i>	1583	<i>Zoophthora radicans</i>	1660	<i>Batkoa apiculata</i>
1512	<i>Beauveria bassiana</i>	1584	<i>Zoophthora radicans</i>	1661	<i>Batkoa apiculata</i>
1513	<i>Beauveria bassiana</i>	1585	<i>Zoophthora radicans</i>	1662	<i>Conidiobolus pseudapiculatus</i>
1514	<i>Beauveria bassiana</i>	1586	<i>Zoophthora radicans</i>	1664	<i>Conidiobolus pseudapiculatus</i>
1515	<i>Beauveria bassiana</i>	1587	<i>Zoophthora radicans</i>	1665	<i>Conidiobolus pseudapiculatus</i>
1516	<i>Beauveria bassiana</i>	1588	<i>Zoophthora radicans</i>	1666	<i>Erynia</i> sp.
1517	<i>Beauveria bassiana</i>	1589	<i>Zoophthora radicans</i>	1668	<i>Hirsutella</i> sp.
1518	<i>Beauveria bassiana</i>	1590	<i>Zoophthora radicans</i>	1669	<i>Gibellula</i> sp.
1519	<i>Beauveria bassiana</i>	1591	<i>Zoophthora radicans</i>	1670	<i>Nomuraea rileyi</i>
1520	<i>Beauveria bassiana</i>	1593	<i>Zoophthora radicans</i>	1671	<i>Nomuraea rileyi</i>
1521	<i>Beauveria bassiana</i>	1594	<i>Zoophthora radicans</i>	1672	<i>Conidiobolus</i> sp.
1522	<i>Fusarium</i> sp.	1595	<i>Zoophthora radicans</i>	1674	<i>Zoophthora radicans</i>
1523	<i>Beauveria bassiana</i>	1596	<i>Pandora neoaphidis</i>	1675	<i>Zoophthora radicans</i>
1524	<i>Beauveria bassiana</i>	1597	<i>Pandora neoaphidis</i>	1676	<i>Beauveria brongniartii</i>
1525	<i>Beauveria bassiana</i>	1598	<i>Pandora neoaphidis</i>	1677	<i>Beauveria bassiana</i>
1526	<i>Beauveria bassiana</i>	1600	<i>Pandora neoaphidis</i>	1678	<i>Beauveria bassiana</i>
1527	<i>Beauveria bassiana</i>	1601	<i>Pandora neoaphidis</i>	1679	<i>Beauveria bassiana</i>
1528	<i>Beauveria bassiana</i>	1602	<i>Pandora neoaphidis</i>	1680	<i>Beauveria brongniartii</i>
1529	<i>Beauveria bassiana</i>	1603	<i>Pandora neoaphidis</i>	1681	<i>Beauveria</i> sp.

- 1682 *Beauveria amorphia*
1683 *Beauveria bassiana*
1684 *Paecilomyces andoi*
1685 *Beauveria* sp.
1686 *Paecilomyces flavovirescens*
1689 *Beauveria bassiana*
1690 *Beauveria bassiana*
1691 *Beauveria bassiana*
1692 *Beauveria bassiana*
1693 Unidentified
1694 Unidentified
1695 *Pandora neoaphidis*
1696 *Pandora neoaphidis*
1699 *Zoophthora radicans*
1703 Unidentified
1704 *Beauveria bassiana*
1705 *Beauveria bassiana*
1706 *Beauveria bassiana*
1707 *Beauveria bassiana*
1708 *Beauveria bassiana*
1709 *Beauveria bassiana*
1710 *Beauveria bassiana*
1711 *Beauveria bassiana*
1712 *Beauveria bassiana*
1713 *Beauveria bassiana*
1714 *Sorospora uvela*
1715 *Pandora blunkii*
1716 *Pandora blunkii*
1717 *Pandora blunkii*
1718 *Pandora blunkii*
1719 *Zoophthora radicans*
1720 *Pandora dipterigena*
1721 *Beauveria bassiana*
1722 *Beauveria bassiana*
1723 *Beauveria bassiana*
1724 *Metarhizium anisopliae*
1725 *Metarhizium anisopliae*
1726 *Metarhizium anisopliae*
1727 *Metarhizium anisopliae*
1728 *Metarhizium anisopliae*
1729 *Metarhizium anisopliae*
1730 *Pandora delphacis*
1731 *Pandora delphacis*
1732 *Gibellula pulchra*
1733 *Conidiobolus thromboides*
1734 *Conidiobolus thromboides*
1735 *Conidiobolus thromboides*
1736 *Conidiobolus coronatus*
1737 *Conidiobolus coronatus*
1738 *Conidiobolus coronatus*
1739 *Zoophthora anglica*
1741 *Conidiobolus obscurus*
1742 *Conidiobolus* nr. *coronatus*
1743 *Conidiobolus* nr. *coronatus*
1744 *Metarhizium anisopliae*
1745 *Metarhizium anisopliae*
1746 *Entomophaga maimaiga*
1747 *Beauveria bassiana*
1748 *Beauveria bassiana*
1749 *Beauveria bassiana*
1750 *Beauveria bassiana*
1751 *Entomophaga aulicae*
1752 *Erynia conica*
1753 *Erynia conica*
1754 *Erynia curvispora*
1756 *Nomuraea rileyi*
1757 *Nomuraea rileyi*
1758 *Nomuraea rileyi*
1759 *Nomuraea rileyi*
1760 *Nomuraea rileyi*
1761 *Nomuraea rileyi*
1762 *Nomuraea rileyi*
1763 *Metarhizium flavoviride* var. *minus*
1764 *Metarhizium flavoviride* var. *minus*
1765 *Metarhizium flavoviride* var. *minus*
1766 *Metarhizium flavoviride* var. *minus*
1767 *Metarhizium flavoviride* var. *minus*
1768 *Metarhizium flavoviride* var. *minus*
1769 *Metarhizium flavoviride* var. *minus*
1770 *Metarhizium flavoviride* var. *minus*
1771 *Metarhizium flavoviride* var. *minus*
1772 *Metarhizium flavoviride* var. *minus*
1773 *Metarhizium flavoviride* var. *minus*
1774 *Verticillium lecanii*
1775 *Beauveria bassiana*
1776 *Beauveria bassiana*
1777 *Beauveria bassiana*
1778 *Beauveria bassiana*
1779 *Beauveria bassiana*
1780 *Beauveria bassiana*
1781 *Beauveria bassiana*
1782 *Beauveria bassiana*
1783 *Beauveria bassiana*
1784 *Pandora neoaphidis*
1785 *Pandora neoaphidis*
1786 *Pandora neoaphidis*
1787 *Verticillium lecanii*
1788 *Beauveria bassiana*
1789 *Beauveria bassiana*
1790 *Beauveria bassiana*
1791 *Beauveria bassiana*
1792 *Beauveria bassiana*
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1795 *Beauveria bassiana*
1796 *Beauveria bassiana*
1797 *Beauveria bassiana*
1798 *Beauveria bassiana*
1799 *Beauveria bassiana*
1800 *Beauveria bassiana*
1801 *Beauveria bassiana*
1802 *Beauveria bassiana*
1803 *Beauveria bassiana*
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1805 *Beauveria bassiana*
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1815 *Beauveria bassiana*
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1818 *Beauveria bassiana*
1819 *Beauveria bassiana*
1820 *Beauveria bassiana*
1821 *Beauveria bassiana*
1822 *Beauveria bassiana*
1823 *Metarhizium anisopliae*
1824 *Pandora neoaphidis*
1825 *Pandora neoaphidis*
1826 *Pandora neoaphidis*
1827 *Pandora neoaphidis*
1828 *Fusarium* sp.
1829 *Beauveria brongniartii*
1830 *Beauveria brongniartii*
1831 *Beauveria bassiana*
1832 *Beauveria bassiana*
1833 *Beauveria bassiana*
1834 *Beauveria bassiana*
1835 *Beauveria* sp.
1836 *Beauveria bassiana*
1837 *Hirsutella citriformis*
1838 *Beauveria bassiana*
1839 *Beauveria bassiana*
1840 *Metarhizium album*
1841 *Zoophthora radicans*
1842 *Beauveria bassiana*
1843 *Beauveria bassiana*
1844 *Beauveria bassiana*
1845 *Beauveria bassiana*
1846 *Beauveria bassiana*
1848 *Beauveria bassiana*
1849 *Beauveria bassiana*
1850 *Beauveria bassiana*
1851 *Paecilomyces farinosus*
1852 *Beauveria bassiana*
1853 *Beauveria bassiana*
1854 *Beauveria bassiana*
1855 *Beauveria bassiana*
1856 *Sorospora uvela*
1857 *Candida* sp.
1858 *Metarhizium anisopliae* var. *majus*
1859 *Metarhizium anisopliae* var. *majus*
1860 *Entomophthora chromaphidis*
1862 *Entomophthora chromaphidis*
1863 *Entomophthora chromaphidis*
1864 *Beauveria bassiana*
1865 *Beauveria bassiana*
1866 *Beauveria bassiana*
1867 *Paecilomyces fumosoroseus*
1868 *Paecilomyces fumosoroseus*
1870 *Erynia sciarae*
1871 *Beauveria brongniartii*
1872 *Beauveria brongniartii*
1873 *Beauveria brongniartii*
1874 *Beauveria brongniartii*
1875 *Beauveria brongniartii*
1876 *Conidiobolus coronatus*
1877 *Candida* sp.
1878 *Metarhizium anisopliae*
1879 *Nomuraea rileyi*
1880 *Cordyceps heteropoda*
1881 *Entomophaga* sp.
1882 *Metarhizium anisopliae* var. *anisopliae*
1883 *Metarhizium anisopliae* var. *anisopliae*
1884 *Conidiobolus* nr. *coronatus*
1885 *Metarhizium anisopliae* var. *anisopliae*
1886 *Beauveria bassiana*
1887 *Pandora dipterigena*
1888 *Entomophaga australiensis*
1889 *Beauveria bassiana*
1890 *Metarhizium anisopliae*
1891 *Metarhizium anisopliae*
1892 *Metarhizium anisopliae*
1893 *Nomuraea rileyi*
1894 *Metarhizium anisopliae* var. *anisopliae*
1895 *Metarhizium anisopliae*
1896 *Metarhizium anisopliae*
1897 *Metarhizium anisopliae*
1898 *Metarhizium anisopliae*
1899 *Metarhizium anisopliae*

- 1900 *Metarhizium anisopliae*
 1901 *Metarhizium anisopliae*
 1902 *Metarhizium anisopliae*
 1903 *Metarhizium anisopliae*
 1904 *Nomuraea atypicola*
 1905 *Verticillium nr. araneorum*
 1907 *Calcarisporium ovalisporum*
 1908 *Hirsutella citriformis*
 1909 *Gibellula clavulifera* var. *alba*
 1910 *Metarhizium anisopliae*
 1911 *Metarhizium anisopliae*
 1912 *Metarhizium anisopliae*
 1913 *Hirsutella citriformis*
 1914 *Metarhizium anisopliae* var. *majus*
 1915 *Torrubiella raticaudata*
 1916 *Torrubiella raticaudata*
 1917 *Hirsutella citriformis*
 1918 *Hirsutella citriformis*
 1919 *Hirsutella citriformis*
 1920 *Entomophaga australiensis*
 1921 *Zoopthora radicans*
 1922 Unidentified
 1923 *Pandora dipterigena*
 1924 *Candida* sp.
 1925 *Candida* sp.
 1926 *Candida* sp.
 1928 *Zoopthora radicans*
 1929 *Zoopthora radicans*
 1930 *Zoopthora radicans*
 1931 *Zoopthora radicans*
 1932 *Zoopthora radicans*
 1933 *Zoopthora radicans*
 1934 *Zoopthora radicans*
 1935 *Zoopthora radicans*
 1936 *Pandora delphacis*
 1937 *Zoopthora radicans*
 1938 *Zoopthora radicans*
 1939 *Paecilomyces farinosus*
 1940 *Crypticola clavulifera*
 1941 *Metarhizium album*
 1942 *Metarhizium album*
 1943 *Metarhizium album*
 1945 *Metarhizium flavoviride* var. *minus*
 1946 *Metarhizium anisopliae* var. *majus*
 1947 *Hirsutella thompsonii*
 1948 *Culicinomyces bisporalis*
 1949 *Culicinomyces bisporalis*
 1950 *Nomuraea rileyi*
 1951 *Paecilomyces lilacinus*
 1952 *Metarhizium anisopliae* var. *anisopliae*
 1953 *Beauveria bassiana*
 1954 *Beauveria bassiana*
 1955 *Beauveria bassiana*
 1956 *Beauveria bassiana*
 1957 *Paecilomyces farinosus*
 1958 *Metarhizium anisopliae* var. *anisopliae*
 1959 *Beauveria bassiana*
 1960 *Beauveria bassiana*
 1961 *Beauveria bassiana*
 1962 *Beauveria bassiana*
 1964 *Acremonium roseum*
 1966 *Beauveria bassiana*
 1967 *Conidiobolus* sp.
 1968 *Metarhizium anisopliae* var. *anisopliae*
 1969 *Beauveria bassiana*
 1970 *Metarhizium anisopliae* var. *anisopliae*
 1971 *Beauveria bassiana*
 1972 *Nomuraea rileyi*
 1973 *Beauveria bassiana*
 1974 *Beauveria bassiana*
 1975 *Beauveria bassiana*
 1976 *Beauveria bassiana*
 1977 *Beauveria bassiana*
 1978 *Beauveria bassiana*
 1979 *Beauveria bassiana*
 1980 *Beauveria bassiana*
 1981 *Pandora neoaphidis*
 1982 *Beauveria bassiana*
 1984 *Beauveria bassiana*
 1985 *Pandora neoaphidis*
 1986 *Pandora neoaphidis*
 1987 *Pandora neoaphidis*
 1988 *Beauveria bassiana*
 1989 *Metarhizium anisopliae* var. *anisopliae*
 1990 *Entomophaga aulicae*
 1991 *Entomophaga aulicae*
 1992 *Entomophaga aulicae*
 1993 *Entomophaga aulicae*
 1994 *Entomophaga aulicae*
 1995 *Entomophaga aulicae*
 1997 *Entomophaga aulicae*
 1998 *Entomophaga aulicae*
 1999 *Entomophaga aulicae*
 2000 *Entomophaga aulicae*
 2002 *Hymenostilbe verrucosa*
 2003 *Lagenidium caudatum*
 2004 *Leptolegnia* sp.
 2005 *Aphanomyces* sp.
 2006 *Hirsutella rhossiliensis*
 2007 *Hirsutella rhossiliensis*
 2008 *Hirsutella rhossiliensis*
 2009 *Verticillium lecanii*
 2010 *Beauveria bassiana*
 2011 *Beauveria bassiana*
 2012 *Hirsutella thompsonii*
 2013 *Nomuraea rileyi*
 2014 *Entomophthora muscae*
 2015 *Catenaria anguillulae*
 2016 *Pandora neoaphidis*
 2017 *Pandora neoaphidis*
 2018 *Pandora neoaphidis*
 2019 *Pandora neoaphidis*
 2020 *Pandora neoaphidis*
 2022 Unidentified
 2023 *Metarhizium flavoviride*
 2024 *Metarhizium flavoviride*
 2025 *Metarhizium flavoviride*
 2026 *Metarhizium flavoviride*
 2027 *Erynia* sp.
 2028 *Pandora delphacis*
 2030 *Beauveria bassiana*
 2031 *Beauveria bassiana*
 2032 *Beauveria bassiana*
 2033 *Beauveria bassiana*
 2034 *Beauveria bassiana*
 2035 *Calcarisporium ovalisporum*
 2036 *Calcarisporium ovalisporum*
 2037 *Metarhizium flavoviride* var. *minus*
 2038 *Metarhizium anisopliae*
 2039 *Metarhizium anisopliae*
 2040 *Beauveria bassiana*
 2041 *Beauveria bassiana*
 2042 *Metarhizium anisopliae*
 2043 *Metarhizium anisopliae*
 2044 *Hirsutella strigosa*
 2045 *Torrubiella homopterorum*
 2046 *Pandora delphacis*
 2047 *Pandora delphacis*
 2048 *Basidiobolus* sp.
 2049 *Basidiobolus* sp.
 2050 *Basidiobolus* sp.
 2051 *Basidiobolus* sp.
 2052 *Basidiobolus* sp.
 2053 *Fusarium semitectum*
 2054 *Beauveria bassiana*
 2055 *Trichothecium roseum*
 2056 *Penicillium thomii*
 2057 *Paecilomyces farinosus*
 2058 *Filobasidiella arachnophila*
 2059 *Fusarium merismoides*
 2060 *Fusarium avenaceum*
 2061 *Mortierella hyalina*
 2062 *Mortierella clausenii*
 2063 *Mortierella* sp.
 2064 *Verticillium coccosporum*
 2065 *Verticillium fungicola*
 2066 *Verticillium lecanii*
 2067 *Acremonium berkeleyanum*
 2069 *Humicola* sp.
 2070 *Acrodontium crateriforme*
 2071 *Phoma cava*
 2072 *Phialophora malorum*
 2073 *Sterile mycelium*
 2074 *Fusarium moniliforme*
 2075 *Beauveria bassiana*
 2076 *Metarhizium anisopliae*
 2077 *Metarhizium anisopliae*
 2078 *Paecilomyces amoenoroseus*
 2079 *Beauveria bassiana*
 2080 *Metarhizium anisopliae* var. *anisopliae*
 2081 *Metarhizium album*
 2082 *Metarhizium album*
 2083 *Entomophaga* sp.
 2085 *Pandora neoaphidis*
 2086 *Pandora neoaphidis*
 2087 *Entomophthora muscae*
 2088 *Entomophthora muscae*
 2089 *Entomophthora muscae*
 2091 *Pandora delphacis*
 2092 *Pandora delphacis*
 2093 *Pandora delphacis*
 2094 *Pandora delphacis*
 2095 *Pandora delphacis*
 2096 *Pandora delphacis*
 2097 *Erynia* sp.
 2098 *Fusarium coccophilum*
 2099 *Hirsutella citriformis*
 2100 *Hirsutella citriformis*
 2101 *Hirsutella citriformis*
 2102 *Hirsutella citriformis*
 2103 *Hirsutella citriformis*
 2105 *Metarhizium anisopliae* var. *anisopliae*
 2106 *Metarhizium anisopliae* var. *anisopliae*
 2107 *Metarhizium anisopliae*
 2108 *Pandora neoaphidis*
 2109 *Pandora neoaphidis*
 2110 *Pandora neoaphidis*
 2111 *Pandora neoaphidis*
 2112 *Pandora neoaphidis*
 2114 *Pandora neoaphidis*
 2115 *Pandora neoaphidis*
 2116 *Pandora neoaphidis*

- 2117 Pandora neoaphidis
2118 Pandora neoaphidis
2119 Pandora neoaphidis
2120 Pandora neoaphidis
2121 Pandora neoaphidis
2122 Pandora neoaphidis
2123 Pandora neoaphidis
2124 Pandora neoaphidis
2128 Pandora neoaphidis
2130 Conidiobolus sp.
2131 Paecilomyces farinosus
2132 Pandora nr. delphacis
2133 Metarhizium flavoviride
2134 Metarhizium anisopliae var. anisopliae
2135 Metarhizium anisopliae var. anisopliae
2136 Metarhizium anisopliae var. anisopliae
2137 Metarhizium anisopliae var. anisopliae
2138 Metarhizium anisopliae var. anisopliae
2139 Metarhizium anisopliae var. anisopliae
2140 Metarhizium anisopliae var. anisopliae
2141 Fusarium subglutinans
2142 Fusarium subglutinans
2143 Fusarium subglutinans
2144 Fusarium subglutinans
2145 Fusarium subglutinans
2146 Pandora nr. delphacis
2147 Conidiobolus sp.
2148 Conidiobolus sp.
2149 Verticillium lecanii
2150 Verticillium lecanii
2151 Metarhizium anisopliae var. majus
2152 Paecilomyces guaeensis
2153 Metarhizium anisopliae
2154 Aschersonia aleyrodis
2155 Paecilomyces farinosus
2156 Metarhizium anisopliae var. anisopliae
2157 Aspergillus flavus
2158 Aspergillus flavus
2159 Aspergillus flavus
2160 Paecilomyces viridis
2161 Aphanocladium album
2162 Metarhizium anisopliae var. anisopliae
2163 Metarhizium anisopliae var. anisopliae
2164 Beauveria sp.
2165 Metarhizium anisopliae var. anisopliae
2166 Metarhizium anisopliae var. anisopliae
2167 Metarhizium anisopliae var. anisopliae
2169 Scopulariopsis sp.
2170 Verticillium indicum
2172 Entomophthora muscae
2173 Aspergillus nr. parasiticus
2174 Nomuraea rileyi
2175 Paecilomyces farinosus
2176 Metarhizium album
2177 Metarhizium album
2178 Metarhizium album
2179 Metarhizium album
2181 Paecilomyces lilacinus
2182 Paecilomyces lilacinus
2183 Paecilomyces lilacinus
2184 Paecilomyces lilacinus
2185 Paecilomyces lilacinus
2186 Paecilomyces lilacinus
2187 Hirsutella bogoriensis
2188 Zoophthora phytonomi
2191 Beauveria bassiana
2192 Furia americana
2193 Conidiobolus sp.
2194 Furia americana
2196 Zoophthora radicans
2197 Hirsutella strigosa
2198 Paecilomyces fumosoroseus
2201 Nomuraea rileyi
2202 Nomuraea rileyi
2203 Nomuraea rileyi
2204 Nomuraea rileyi
2205 Nomuraea rileyi
2206 Nomuraea rileyi
2207 Nomuraea rileyi
2208 Hirsutella sp.
2209 Hirsutella sp.
2210 Metarhizium sp.
2211 Metarhizium anisopliae
2212 Metarhizium anisopliae
2213 Metarhizium anisopliae
2214 Metarhizium anisopliae
2215 Paecilomyces amoenoroseus
2216 Paecilomyces fumosoroseus
2217 Paecilomyces fumosoroseus
2218 Verticillium chlamydosporium
2219 Paecilomyces fumosoroseus
2220 Paecilomyces fumosoroseus
2221 Paecilomyces fumosoroseus
2223 Metarhizium anisopliae var. anisopliae
2224 Metarhizium sp.
2225 Metarhizium sp.
2226 Hirsutella haptosporus
2227 Hirsutella subulata
2228 Hirsutella nr. haptosporus
2230 Metarhizium anisopliae var. anisopliae
2231 Metarhizium anisopliae var. anisopliae
2232 Fusarium sp.
2233 Paecilomyces marquandii
2234 Verticillium psalliotiae
2235 Verticillium insectorum
2236 Beauveria bassiana
2237 Schizangiella sp.
2239 Schizangiella sp.
2240 Zoophthora radicans
2241 Zoophthora radicans
2242 Zoophthora radicans
2243 Zoophthora radicans
2244 Zoophthora radicans
2245 Zoophthora radicans
2246 Zoophthora radicans
2247 Paecilomyces fumosoroseus
2248 Beauveria bassiana
2249 Beauveria bassiana
2250 Beauveria bassiana
2251 Beauveria amorphae
2252 Fusarium sp.
2253 Beauveria bassiana
2254 Beauveria bassiana
2255 Scopulariopsis sp.
2256 Zoophthora radicans
2257 Zoophthora radicans
2258 Zoophthora radicans
2259 Zoophthora radicans
2260 Zoophthora radicans
2261 Zoophthora radicans
2262 Zoophthora radicans
2263 Entomophthora muscae
2264 Entomophthora muscae
2265 Entomophthora muscae
2266 Entomophthora muscae
2267 Beauveria bassiana
2268 Aschersonia aleyrodis
2269 Paecilomyces farinosus
2270 Beauveria bassiana
2271 Beauveria bassiana
2273 Entomophaga conglomerata
2274 Erynia conica
2275 Erynia conica
2276 Erynia rhizospora
2277 Erynia conica
2279 Erynia sp.
2280 Pandora neoaphidis
2281 Zoophthora phalloides
2282 Zoophthora radicans
2283 Zoophthora radicans
2284 Zoophthora radicans
2285 Zoophthora radicans
2286 Zoophthora radicans
2287 Zoophthora radicans
2288 Zoophthora radicans
2289 Zoophthora radicans
2292 Erynia sp.
2293 Pandora neoaphidis
2294 Erynia sp.
2297 Beauveria bassiana
2298 Pandora neoaphidis
2299 Fusarium semitectum
2300 Fusarium semitectum
2301 Fusarium subglutinans
2302 Fusarium sp.
2303 Fusarium sp.
2304 Fusarium lateritium
2311 Fusarium solani
2312 Fusarium solani
2313 Fusarium solani
2314 Fusarium solani
2316 Fusarium nygamai
2317 Entomophthora muscae
2318 Beauveria bassiana
2319 Beauveria bassiana
2320 Beauveria bassiana
2321 Beauveria bassiana
2322 Beauveria bassiana
2323 Verticillium sp.
2324 Verticillium sp.
2325 Verticillium sp.
2326 Verticillium sp.
2327 Scopulariopsis sp.
2328 Scopulariopsis sp.
2329 Verticillium sp.
2330 Beauveria bassiana
2332 Verticillium sp.
2333 Fusarium sp.
2334 Verticillium lecanii
2336 Beauveria bassiana
2337 Fusarium sp.
2338 Conidiobolus lamprauges
2339 Metarhizium flavoviride var. minus
2340 Paecilomyces reniformis

- 2341 *Metarhizium anisopliae*
 2342 *Metarhizium anisopliae*
 2343 *Metarhizium anisopliae*
 2344 *Paecilomyces farinosus*
 2345 *Nomuraea rileyi*
 2346 *Hirsutella citriformis*
 2347 *Hirsutella citriformis*
 2348 *Hirsutella repens*
 2350 *Paecilomyces* sp.
 2351 *Aschersonia inasperata*
 2352 *Hirsutella guyana*
 2353 *Metarhizium anisopliae*
 2354 *Paecilomyces* sp.
 2355 *Paecilomyces farinosus*
 2356 *Aschersonia inasperata*
 2357 *Aschersonia inasperata*
 2358 *Aschersonia inasperata*
 2359 *Hirsutella repens*
 2360 *Beauveria bassiana*
 2362 *Entomophaga aulicae*
 2363 *Entomophaga aulicae*
 2365 *Entomophaga aulicae*
 2366 *Entomophaga aulicae*
 2367 *Entomophaga aulicae*
 2368 *Entomophaga aulicae*
 2369 *Entomophaga aulicae*
 2370 *Entomophaga maimaiga*
 2371 *Entomophaga maimaiga*
 2372 *Entomophaga aulicae*
 2373 *Entomophaga aulicae*
 2374 *Entomophaga aulicae*
 2376 *Paecilomyces fumosoroseus*
 2378 *Paecilomyces* sp.
 2387 *Hirsutella guyana*
 2394 *Hirsutella repens*
 2395 *Nomuraea rileyi*
 2396 *Hirsutella inasperata*
 2397 *Aschersonia inasperata*
 2398 *Aschersonia inasperata*
 2399 *Verticillium cinnamomeum*
 2400 *Zoopthora radicans*
 2401 *Beauveria brongniartii*
 2402 *Beauveria bassiana*
 2403 *Beauveria bassiana*
 2404 *Beauveria bassiana*
 2405 *Erynia conica*
 2406 *Pandora dipterigena*
 2407 *Erynia rhizospora*
 2409 *Pandora delphacis*
 2410 *Zoopthora radicans*
 2411 *Zoopthora radicans*
 2412 *Beauveria* sp.
 2413 *Nomuraea* sp.
 2414 *Verticillium* sp.
 2415 *Tilachlidium* sp.
 2416 *Cordyceps militaris*
 2417 *Beauveria bassiana*
 2418 *Fusarium* sp.
 2420 *Hirsutella citriformis*
 2421 *Metarhizium anisopliae*
 2422 *Hirsutella citriformis*
 2423 *Hirsutella citriformis*
 2424 *Metarhizium anisopliae* var. *anisopliae*
 2425 *Paecilomyces fumosoroseus*
 2426 *Hirsutella citriformis*
 2427 *Beauveria bassiana*
 2428 *Hirsutella citriformis*
 2429 *Paecilomyces fumosoroseus*
 2430 *Beauveria bassiana*
 2452 *Coemansia* sp.
 2454 *Beauveria bassiana*
 2455 *Beauveria bassiana*
 2456 *Paecilomyces viridis*
 2457 *Beauveria bassiana*
 2458 *Beauveria bassiana*
 2459 *Hirsutella thompsonii*
 2460 *Verticillium lecanii*
 2461 *Beauveria bassiana*
 2462 *Beauveria bassiana*
 2463 *Beauveria bassiana*
 2464 *Hirsutella thompsonii*
 2465 *Nomuraea rileyi*
 2466 *Nomuraea rileyi*
 2467 *Nomuraea anemonoides*
 2468 *Drechmeria coniospora*
 2469 *Metarhizium anisopliae* var. *anisopliae*
 2471 *Culicinomyces clavisporus*
 2472 *Culicinomyces clavisporus*
 2473 *Culicinomyces clavisporus*
 2474 *Culicinomyces clavisporus*
 2475 *Culicinomyces clavisporus*
 2476 *Culicinomyces clavisporus*
 2477 *Culicinomyces clavisporus*
 2478 *Culicinomyces clavisporus*
 2479 *Culicinomyces clavisporus*
 2480 *Culicinomyces clavisporus*
 2481 *Culicinomyces clavisporus*
 2482 *Culicinomyces clavisporus*
 2483 *Verticillium balanoides*
 2484 *Beauveria bassiana*
 2485 *Beauveria bassiana*
 2486 *Beauveria bassiana*
 2487 *Beauveria bassiana*
 2488 *Paecilomyces tenuipes*
 2489 *Paecilomyces tenuipes*
 2490 *Paecilomyces tenuipes*
 2491 *Paecilomyces tenuipes*
 2492 *Nomuraea rileyi*
 2493 *Conidiobolus pseudapiculatus*
 2494 *Conidiobolus* sp.
 2495 *Erynia* sp.
 2496 *Conidiobolus pseudapiculatus*
 2497 *Conidiobolus pseudapiculatus*
 2498 *Conidiobolus* sp.
 2499 *Zoopthora radicans*
 2500 *Zoopthora radicans*
 2501 *Zoopthora radicans*
 2502 *Conidiobolus pseudapiculatus*
 2503 *Zoopthora radicans*
 2504 *Conidiobolus obscurus*
 2505 *Zoopthora anglica*
 2506 *Zoopthora radicans*
 2507 *Erynia* sp.
 2509 *Beauveria bassiana*
 2510 *Metarhizium anisopliae*
 2511 *Beauveria bassiana*
 2512 *Beauveria bassiana*
 2513 *Metarhizium anisopliae*
 2514 *Metarhizium anisopliae* var. *anisopliae*
 2515 *Beauveria bassiana*
 2516 *Beauveria bassiana*
 2517 *Metarhizium anisopliae*
 2518 *Metarhizium anisopliae*
 2519 *Beauveria bassiana*
 2520 *Beauveria bassiana*
 2521 *Metarhizium anisopliae*
 2522 *Entomophaga calopteni*
 2523 *Zoopthora radicans*
 2525 *Erynia* sp.
 2526 *Culicinomyces clavisporus*
 2527 *Culicinomyces clavisporus*
 2528 Unidentified
 2529 *Lagenidium giganteum*
 2530 *Lagenidium giganteum*
 2531 *Lagenidium giganteum*
 2532 *Lagenidium giganteum*
 2533 *Lagenidium giganteum*
 2535 *Entomophaga* sp.
 2536 *Erynia* sp.
 2537 *Erynia* sp.
 2538 *Erynia* sp.
 2539 *Erynia* sp.
 2540 *Entomophthora muscae*
 2541 *Entomophthora muscae*
 2542 *Entomophthora muscae*
 2543 *Entomophthora muscae*
 2544 *Beauveria bassiana*
 2545 *Beauveria bassiana*
 2546 *Paecilomyces* sp.
 2547 *Metarhizium anisopliae*
 2548 *Metarhizium anisopliae*
 2549 *Zoopthora radicans*
 2550 *Zoopthora radicans*
 2551 *Zoopthora radicans*
 2552 *Zoopthora radicans*
 2553 *Erynia* sp.
 2554 *Zoopthora radicans*
 2555 Unidentified
 2556 *Metarhizium* sp.
 2557 *Beauveria bassiana*
 2558 *Zoopthora radicans*
 2559 *Beauveria bassiana*
 2560 *Metarhizium anisopliae*
 2561 *Metarhizium anisopliae*
 2562 *Leptolegnia chapmanii*
 2563 Unidentified
 2564 *Paecilomyces farinosus*
 2567 *Beauveria caledonica*
 2568 *Fusarium* sp.
 2569 *Fusarium* sp.
 2570 *Beauveria bassiana*
 2571 *Beauveria bassiana*
 2572 *Beauveria bassiana*
 2573 *Beauveria bassiana*
 2574 *Metarhizium anisopliae*
 2575 *Metarhizium anisopliae*
 2576 *Paecilomyces farinosus*
 2577 *Paecilomyces farinosus*
 2578 *Paecilomyces farinosus*
 2579 *Beauveria bassiana*
 2580 *Beauveria bassiana*
 2581 *Hirsutella* sp.
 2583 *Pandora neoaphidis*
 2584 *Pandora neoaphidis*
 2585 *Pandora neoaphidis*
 2587 *Pandora neoaphidis*
 2588 *Pandora neoaphidis*
 2589 *Pandora neoaphidis*
 2591 *Pandora neoaphidis*
 2592 *Pandora neoaphidis*
 2593 *Pandora neoaphidis*
 2594 *Pandora neoaphidis*
 2595 *Fusarium* sp.
 2596 *Metarhizium* sp.
 2597 *Beauveria bassiana*
 2598 *Hirsutella citriformis*
 2599 *Hirsutella verticilloides*

- 2600 *Zoophthora radicans*
2601 *Zoophthora radicans*
2602 *Metarhizium anisopliae*
2603 *Metarhizium anisopliae*
2604 *Metarhizium anisopliae*
2605 *Metarhizium anisopliae*
2606 *Metarhizium anisopliae*
2607 *Metarhizium anisopliae*
2608 *Metarhizium anisopliae*
2609 *Metarhizium anisopliae*
2610 *Metarhizium anisopliae*
2611 *Metarhizium anisopliae*
2612 *Metarhizium anisopliae*
2613 *Paecilomyces* sp.
2614 *Paecilomyces* sp.
2615 *Paecilomyces* sp.
2616 *Paecilomyces* sp.
2617 *Paecilomyces* sp.
2618 *Paecilomyces* sp.
2619 *Beauveria bassiana*
2620 *Paecilomyces* sp.
2621 *Beauveria bassiana*
2622 *Culicinomyces clavisporus*
2624 *Beauveria bassiana*
2625 *Beauveria bassiana*
2626 *Beauveria bassiana*
2627 *Metarhizium anisopliae*
2628 *Metarhizium anisopliae*
2629 *Beauveria bassiana*
2630 *Beauveria bassiana*
2631 *Beauveria bassiana*
2632 *Beauveria bassiana*
2633 *Beauveria bassiana*
2634 *Metarhizium anisopliae*
2635 *Metarhizium anisopliae*
2636 *Beauveria bassiana*
2637 *Beauveria bassiana*
2638 *Beauveria bassiana*
2639 *Beauveria bassiana*
2640 Unidentified
2641 *Beauveria amorpha*
2642 *Beauveria bassiana*
2643 *Penicillium* sp.
2644 *Hirsutella* sp.
2645 *Hirsutella* sp.
2646 *Hirsutella* sp.
2647 *Hirsutella* sp.
2648 *Hirsutella* sp.
2649 *Hirsutella* sp.
2650 *Hirsutella* sp.
2651 *Hirsutella* sp.
2652 *Hirsutella* sp.
2653 *Hirsutella* sp.
2654 *Hirsutella* sp.
2655 *Hirsutella* sp.
2656 *Hirsutella* sp.
2657 *Hirsutella* sp.
2658 *Paecilomyces farinosus*
2659 *Verticillium lecanii*
2660 *Beauveria brongniartii*
2661 *Entomophaga maimaiga*
2663 *Erynia* sp.
2664 *Erynia* sp.
2665 *Entomophthora muscae*
2666 *Zoophthora radicans*
2667 *Entomophthora schizophorae*
2668 *Entomophthora muscae*
2670 *Entomophthora muscae*
2671 *Entomophaga* sp.
2672 *Conidiobolus* sp.
2673 *Entomophthora muscae*
2674 *Entomophthora muscae*
2675 *Entomophthora muscae*
2676 *Beauveria bassiana*
2677 *Neozygites tetranychii*
2678 *Entomophthora muscae*
2679 *Paecilomyces fumosoroseus*
2680 *Leptolegnia chapmanii*
2681 *Leptolegnia chapmanii*
2682 *Leptolegnia chapmanii*
2683 *Ascosphaera apis*
2684 *Tolypocladium geodes*
2685 *Beauveria bassiana*
2686 *Beauveria bassiana*
2687 *Beauveria bassiana*
2688 *Beauveria bassiana*
2689 *Beauveria bassiana*
2690 *Beauveria bassiana*
2691 *Beauveria bassiana*
2692 *Beauveria bassiana*
2693 *Beauveria bassiana*
2694 *Beauveria bassiana*
2695 *Beauveria bassiana*
2696 *Zoophthora radicans*
2697 *Zoophthora radicans*
2698 *Zoophthora radicans*
2699 *Zoophthora radicans*
2700 *Zoophthora radicans*
2701 *Zoophthora radicans*
2702 *Zoophthora radicans*
2703 *Zoophthora radicans*
2704 *Zoophthora radicans*
2705 *Zoophthora radicans*
2706 *Zoophthora radicans*
2707 *Zoophthora radicans*
2708 *Zoophthora radicans*
2709 *Zoophthora radicans*
2710 *Zoophthora radicans*
2711 *Zoophthora radicans*
2712 *Zoophthora radicans*
2713 *Zoophthora radicans*
2714 *Zoophthora radicans*
2715 *Conidiobolus coronatus*
2716 *Zoophthora radicans*
2717 *Zoophthora radicans*
2718 *Zoophthora radicans*
2719 *Zoophthora radicans*
2720 *Zoophthora radicans*
2721 *Entomophaga praxibuli*
2722 *Beauveria bassiana*
2723 *Beauveria bassiana*
2724 *Paecilomyces farinosus*
2725 *Beauveria bassiana*
2726 *Paecilomyces farinosus*
2727 *Beauveria bassiana*
2728 *Beauveria bassiana*
2729 *Beauveria bassiana*
2730 *Conidiobolus coronatus*
2731 *Conidiobolus firmipilleus*
2732 *Zoophthora radicans*
2733 *Paecilomyces fumosoroseus*
2734 *Paecilomyces farinosus*
2735 *Metarhizium anisopliae*
2736 *Fusarium* sp.
2737 *Beauveria bassiana*
2738 Mixed culture
2739 *Beauveria bassiana*
2740 Mixed culture
2741 *Metarhizium anisopliae*
2742 *Metarhizium anisopliae* var. *anisopliae*
2743 *Fusarium* sp.
2744 *Paecilomyces fumosoroseus*
2745 *Paecilomyces fumosoroseus*
2746 Unidentified
2747 Unidentified
2748 *Beauveria bassiana*
2749 *Paecilomyces fumosoroseus*
2751 *Beniowskia* sp.
2752 Unidentified
2754 *Pandora neoaphidis*
2755 *Pandora neoaphidis*
2756 *Pandora neoaphidis*
2757 *Pandora neoaphidis*
2758 *Pandora neoaphidis*
2760 *Pandora neoaphidis*
2761 *Pandora neoaphidis*
2762 *Pandora neoaphidis*
2763 *Pandora neoaphidis*
2764 *Metarhizium anisopliae*
2765 *Aspergillus* sp.
2766 *Pandora neoaphidis*
2767 *Pandora neoaphidis*
2768 *Pandora neoaphidis*
2769 *Pandora neoaphidis*
2771 *Conidiobolus* sp.
2772 *Conidiobolus* sp.
2773 *Pandora neoaphidis*
2775 *Entomophaga maimaiga*
2776 *Fusarium* sp.
2777 *Tolypocladium cylindrosporum*
2778 *Tolypocladium cylindrosporum*
2779 *Entomophaga maimaiga*
2780 *Entomophaga maimaiga*
2781 *Pandora neoaphidis*
2782 *Pandora neoaphidis*
2783 *Pandora neoaphidis*
2784 *Pandora neoaphidis*
2785 *Beauveria bassiana*
2786 *Metarhizium anisopliae*
2787 *Basidiobolus ranarum*
2788 *Hirsutella rhossiliensis*
2789 *Hirsutella rhossiliensis*
2790 *Hirsutella rhossiliensis*
2791 *Hirsutella rhossiliensis*
2792 *Hirsutella rhossiliensis*
2793 *Hirsutella rhossiliensis*
2794 *Hirsutella rhossiliensis*
2795 *Hirsutella* sp.
2796 *Hirsutella* sp.
2797 *Hirsutella* sp.
2798 *Hirsutella* sp.
2799 *Hirsutella* sp.
2800 *Hirsutella thompsonii*
2801 *Hirsutella* sp.
2802 *Hirsutella* sp.
2803 *Hirsutella* sp.
2804 *Paecilomyces fumosoroseus*
2805 *Metarhizium anisopliae*
2806 *Metarhizium anisopliae*
2807 *Paecilomyces farinosus*
2808 *Metarhizium anisopliae*
2809 *Metarhizium anisopliae*
2810 *Verticillium* sp.
2811 *Zoophthora radicans*
2812 *Conidiobolus coronatus*
2813 *Conidiobolus coronatus*
2814 *Conidiobolus coronatus*
2815 *Conidiobolus* sp.

- 2816 *Conidiobolus* sp.
 2817 *Aspergillus* sp.
 2818 *Aspergillus flavus*
 2819 *Conidiobolus* sp.
 2820 *Aspergillus* sp.
 2821 Unidentified
 2822 *Verticillium* sp.
 2824 *Pandora blunckii*
 2828 *Conidiobolus thromboides*
 2829 *Conidiobolus thromboides*
 2830 *Conidiobolus thromboides*
 2831 *Beauveria bassiana*
 2832 *Verticillium* sp.
 2833 *Aspergillus flavus*
 2834 *Penicillium* sp.
 2835 *Paecilomyces farinosus*
 2836 *Penicillium* sp.
 2837 *Pandora neoaphidis*
 2838 *Pandora neoaphidis*
 2839 *Pandora neoaphidis*
 2840 *Pandora neoaphidis*
 2841 *Zoopthora occidentalis*
 2842 *Pandora neoaphidis*
 2843 *Entomophaga aulicae*
 2844 *Pandora neoaphidis*
 2845 *Pandora neoaphidis*
 2846 *Pandora neoaphidis*
 2847 *Pandora neoaphidis*
 2848 *Pandora neoaphidis*
 2849 *Conidiobolus thromboides*
 2850 *Conidiobolus thromboides*
 2851 *Pandora neoaphidis*
 2852 *Pandora neoaphidis*
 2853 *Pandora neoaphidis*
 2854 *Pandora neoaphidis*
 2855 *Pandora neoaphidis*
 2856 *Pandora neoaphidis*
 2857 *Beauveria bassiana*
 2858 *Verticillium lecanii*
 2859 *Verticillium lecanii*
 2860 *Beauveria bassiana*
 2861 *Beauveria bassiana*
 2862 *Verticillium lecanii*
 2863 *Stachybotrys* sp.
 2864 *Beauveria bassiana*
 2865 *Pandora neoaphidis*
 2866 *Pandora neoaphidis*
 2867 *Pandora neoaphidis*
 2868 *Pandora neoaphidis*
 2869 *Beauveria bassiana*
 2870 *Pandora neoaphidis*
 2872 *Pandora neoaphidis*
 2873 *Pandora neoaphidis*
 2874 *Pandora neoaphidis*
 2875 *Pandora neoaphidis*
 2876 *Pandora neoaphidis*
 2877 *Verticillium lecanii*
 2878 *Verticillium lecanii*
 2879 *Beauveria bassiana*
 2880 *Beauveria bassiana*
 2881 *Beauveria bassiana*
 2882 *Beauveria bassiana*
 2883 *Beauveria bassiana*
 2893 *Zoopthora radicans*
 2894 *Hirsutella rhossiliensis*
 2895 *Sporodiniella umbellata*
 2896 *Entomophaga aulicae*
 2897 *Entomophaga aulicae*
 2898 *Entomophaga aulicae*
 2899 *Entomophaga aulicae*
 2900 *Entomophaga aulicae*
 2901 *Entomophaga aulicae*
 2902 *Entomophaga aulicae*
 2903 *Entomophaga aulicae*
 2904 *Entomophaga aulicae*
 2905 *Entomophaga aulicae*
 2906 *Furia crustosa*
 2909 *Sporothrix insectorum*
 2910 *Akanthomyces gracilis*
 2911 *Tolypocladium cylindrosporum*
 2912 *Tolypocladium cylindrosporum*
 2913 *Pseudogibellula formicarum*
 2914 *Conidiobolus thromboides*
 2915 *Stilbella buquetti*
 2916 *Verticillium lecanii*
 2917 *Stilbella buquetti*
 2918 *Sporothrix insectorum*
 2919 *Akanthomyces gracilis*
 2920 *Tolypocladium cylindrosporum*
 2921 *Tolypocladium extingens*
 2922 *Beauveria vermiconia*
 2923 *Verticillium lecanii*
 2924 *Conidiobolus* sp.
 2925 *Conidiobolus* sp.
 2926 *Conidiobolus* sp.
 2927 *Conidiobolus* sp.
 2928 *Conidiobolus* sp.
 2929 *Engyodontium aranearum*
 2930 *Verticillium lecanii*
 2931 *Hirsutella rhossiliensis*
 2932 *Hirsutella rhossiliensis*
 2933 *Hirsutella rhossiliensis*
 2934 *Arthrobotrys dactyloides*
 2935 *Engyodontium aranearum*
 2936 *Batkoa major*
 2937 *Paecilomyces farinosus*
 2938 *Beauveria bassiana*
 2939 *Hirsutella* sp. 1
 2940 *Hirsutella* sp. 1
 2941 *Metarhizium anisopliae*
 2942 *Beauveria bassiana*
 2943 *Beauveria bassiana*
 2944 *Beauveria bassiana*
 2945 *Beauveria bassiana*
 2946 *Beauveria bassiana*
 2948 *Metarhizium flavoviride* var. minus
 2949 *Metarhizium anisopliae*
 2950 *Penicillium* sp.
 2951 *Metarhizium anisopliae*
 2952 *Paecilomyces fumosoroseus*
 2953 *Beauveria bassiana*
 2954 *Paecilomyces farinosus*
 2955 *Conidiobolus thromboides*
 2956 *Paecilomyces fumosoroseus*
 2957 *Beauveria bassiana*
 2958 *Paecilomyces amoenoroseus*
 2959 *Paecilomyces amoenoroseus*
 2960 *Paecilomyces amoenoroseus*
 2961 *Beauveria bassiana*
 2962 *Beauveria bassiana*
 2963 *Entomophaga praxibuli*
 2964 *Entomophaga praxibuli*
 2965 *Entomophaga praxibuli*
 2966 *Entomophaga praxibuli*
 2967 *Entomophaga praxibuli*
 2968 *Entomophaga praxibuli*
 2969 *Entomophaga praxibuli*
 2970 *Entomophaga praxibuli*
 2971 *Paecilomyces farinosus*
 2972 *Beauveria bassiana*
 2973 *Paecilomyces farinosus*
 2974 *Metarhizium anisopliae* var. anisopliae
 2975 *Paecilomyces farinosus*
 2976 *Beauveria bassiana*
 2977 *Zoopthora radicans*
 2978 *Zoopthora radicans*
 2979 *Zoopthora radicans*
 2980 *Zoopthora radicans*
 2981 *Metarhizium anisopliae*
 2982 *Metarhizium anisopliae*
 2983 *Beauveria bassiana*
 2984 *Beauveria bassiana*
 2985 *Beauveria bassiana*
 2986 *Beauveria bassiana*
 2987 *Beauveria bassiana*
 2988 *Beauveria bassiana*
 2989 *Beauveria bassiana*
 2990 *Beauveria bassiana*
 2991 *Beauveria bassiana*
 2992 *Hirsutella* sp.
 2993 *Hirsutella guyana*
 2994 *Zoopthora radicans*
 2995 *Zoopthora radicans*
 2996 *Zoopthora radicans*
 2997 *Beauveria* sp.
 2998 *Beauveria velata*
 2999 Unidentified
 3000 *Verticillium lecanii*
 3001 *Gliocladium roseum*
 3002 *Zoopthora radicans*
 3003 *Zoopthora radicans*
 3004 *Zoopthora radicans*
 3005 *Zoopthora radicans*
 3006 *Zoopthora radicans*
 3007 *Zoopthora radicans*
 3008 *Zoopthora radicans*
 3009 *Zoopthora radicans*
 3010 *Zoopthora radicans*
 3011 *Zoopthora radicans*
 3012 *Zoopthora radicans*
 3013 *Zoopthora radicans*
 3014 *Aschersonia* sp.
 3015 *Aschersonia* sp.
 3016 *Entomophaga aulicae*
 3017 *Paecilomyces farinosus*
 3018 *Beauveria bassiana*
 3019 *Beauveria bassiana*
 3020 *Beauveria bassiana*
 3021 *Zoopthora radicans*
 3022 *Zoopthora radicans*
 3023 *Zoopthora radicans*
 3024 *Zoopthora radicans*
 3025 *Entomophaga macleodii*
 3026 *Zoopthora radicans*
 3027 *Zoopthora occidentalis*
 3028 *Zoopthora occidentalis*
 3029 *Zoopthora occidentalis*
 3030 *Fusarium* sp.
 3031 *Fusarium* sp.
 3032 *Fusarium* sp.
 3035 *Verticillium* ?cephalosporum
 3036 *Penicillium* sp.
 3037 *Beauveria bassiana*
 3039 *Entomophaga aulicae*
 3040 *Beauveria bassiana*
 3041 *Beauveria bassiana*
 3042 *Beauveria bassiana*
 3043 *Metarhizium anisopliae*
 3044 *Metarhizium anisopliae*

- 3045 *Metarhizium anisopliae*
3047 *Paecilomyces marquandii*
3048 *Aspergillus* sp.
3049 *Paecilomyces marquandii*
3051 *Fusarium* sp.
3052 *Entomophaga maimaiga*
3053 *Entomophaga maimaiga*
3054 *Beauveria brongniartii*
3055 *Beauveria bassiana*
3056 *Metarhizium anisopliae*
3057 *Metarhizium anisopliae*
3058 *Entomophaga praxibuli*
3059 *Entomophaga praxibuli*
3060 *Entomophaga praxibuli*
3061 *Entomophaga praxibuli*
3062 *Pandora delphacis*
3063 *Beauveria bassiana*
3064 *Metarhizium anisopliae*
3065 *Beauveria bassiana*
3066 *Beauveria bassiana*
3067 *Entomophaga praxibuli*
3068 *Entomophaga praxibuli*
3069 *Entomophaga praxibuli*
3070 *Beauveria bassiana*
3071 *Zoopthora occidentalis*
3072 *Pandora delphacis*
3073 *Zoopthora occidentalis*
3074 *Entomophthora muscae*
3075 *Pandora blunckii*
3076 *Paecilomyces fumosoroseus*
3077 *Entomophaga macleodii*
3078 *Entomophaga macleodii*
3079 *Entomophaga macleodii*
3080 *Conidiobolus obscurus*
3081 *Pandora neoaphidis*
3082 *Pandora neoaphidis*
3083 *Paecilomyces fumosoroseus*
3084 *Paecilomyces* sp. nov.
3085 *Cladosporium cladosporioides*
3086 *Beauveria bassiana*
3087 *Conidiobolus coronatus*
3088 *Conidiobolus obscurus*
3089 *Conidiobolus obscurus*
3090 *Conidiobolus obscurus*
3091 *Conidiobolus obscurus*
3092 *Conidiobolus obscurus*
3093 *Pandora delphacis*
3094 *Pandora delphacis*
3095 *Pandora delphacis*
3096 *Pandora delphacis*
3098 *Beauveria bassiana*
3099 *Conidiobolus obscurus*
3100 *Zoopthora radicans*
3101 *Paecilomyces* sp.
3102 *Batkoa major*
3103 *Batkoa major*
3104 *Zoopthora radicans*
3105 *Zoopthora radicans*
3106 *Pandora delphacis*
3107 *Pandora delphacis*
3108 *Metarhizium anisopliae* var. *anisopliae*
3109 *Conidiobolus coronatus*
3110 *Entomophaga maimaiga*
3111 *Beauveria bassiana*
3112 *Beauveria bassiana*
3113 *Beauveria bassiana*
3114 *Zoopthora radicans*
3115 *Zoopthora radicans*
3116 *Zoopthora radicans*
3117 *Zoopthora radicans*
3118 *Zoopthora radicans*
3119 *Zoopthora radicans*
3120 *Beauveria bassiana*
3121 *Beauveria bassiana*
3122 Unidentified
3123 Unidentified
3124 Unidentified
3125 Unidentified
3126 *Pandora neoaphidis*
3127 *Metarhizium anisopliae* var. *anisopliae*
3128 Unidentified
3129 *Conidiobolus thromboides*
3130 *Conidiobolus obscurus*
3131 *Conidiobolus obscurus*
3132 *Conidiobolus obscurus*
3133 *Conidiobolus obscurus*
3134 *Conidiobolus obscurus*
3135 *Conidiobolus obscurus*
3136 *Conidiobolus thromboides*
3137 *Conidiobolus obscurus*
3138 *Conidiobolus obscurus*
3139 *Conidiobolus obscurus*
3140 *Conidiobolus obscurus*
3141 *Conidiobolus obscurus*
3142 *Sporothrix* sp.
3143 *Aspergillus niger*
3144 *Aspergillus flavus*
3145 *Metarhizium anisopliae* var. *majus*
3146 *Metarhizium anisopliae* var. *anisopliae*
3147 *Metarhizium anisopliae* var. *anisopliae*
3148 *Metarhizium anisopliae* var. *anisopliae*
3149 *Zoopthora radicans*
3150 *Zoopthora radicans*
3151 *Zoopthora radicans*
3152 *Paecilomyces farinosus*
3153 *Beauveria bassiana*
3154 *Beauveria bassiana*
3155 *Beauveria bassiana*
3156 *Beauveria bassiana*
3157 *Beauveria bassiana*
3158 *Beauveria bassiana*
3159 *Zoopthora radicans*
3160 *Zoopthora radicans*
3161 *Zoopthora radicans*
3162 *Zoopthora radicans*
3163 *Zoopthora radicans*
3164 *Zoopthora radicans*
3165 *Zoopthora radicans*
3166 *Beauveria bassiana*
3167 *Beauveria bassiana*
3168 *Beauveria bassiana*
3169 *Beauveria bassiana*
3170 *Zoopthora radicans*
3171 *Zoopthora radicans*
3172 *Zoopthora radicans*
3173 *Verticillium balanoides*
3174 *Pandora neoaphidis*
3175 *Pandora neoaphidis*
3176 *Aspergillus* sp.
3177 *Paecilomyces fumosoroseus*
3178 Mixed culture
3179 *Paecilomyces fumosoroseus*
3180 *Metarhizium anisopliae* var. *anisopliae*
3181 *Beauveria bassiana*
3182 Mixed culture
3183 *Paecilomyces farinosus*
3184 *Paecilomyces farinosus*
3185 *Paecilomyces farinosus*
3186 *Paecilomyces farinosus*
3187 *Metarhizium anisopliae* var. *anisopliae*
3188 *Paecilomyces fumosoroseus*
3189 *Scopulariopsis* sp.
3190 *Metarhizium anisopliae* var. *anisopliae*
3191 *Paecilomyces farinosus*
3192 *Paecilomyces amoenoroseus*
3193 *Metarhizium anisopliae* var. *anisopliae*
3194 *Metarhizium anisopliae* var. *anisopliae*
3195 *Aspergillus* sp.
3196 *Metarhizium anisopliae* var. *anisopliae*
3197 *Beauveria bassiana*
3198 *Beauveria bassiana*
3199 *Beauveria bassiana*
3200 *Pandora blunckii*
3201 *Pandora blunckii*
3202 *Pandora blunckii*
3203 *Scopulariopsis* sp.
3204 *Zoopthora radicans*
3205 *Zoopthora radicans*
3206 *Zoopthora radicans*
3207 *Hirsutella rhossiliensis*
3208 *Conidiobolus* sp.
3209 Unidentified
3210 *Metarhizium anisopliae* var. *anisopliae*
3211 *Metarhizium anisopliae* var. *anisopliae*
3212 *Entomophaga aulicae*
3213 *Zoopthora radicans*
3214 *Zoopthora radicans*
3215 *Beauveria bassiana*
3216 *Beauveria bassiana*
3217 *Zoopthora radicans*
3218 *Fusarium acuminatum*
3219 *Beauveria bassiana*
3220 *Beauveria bassiana*
3221 *Paecilomyces farinosus*
3222 *Conidiobolus coronatus*
3223 *Fusarium moniliforme* var. *intermedium*
3224 *Batkoa apiculata*
3225 *Batkoa apiculata*
3226 *Batkoa apiculata*
3227 Unidentified
3228 Unidentified
3229 Unidentified
3230 Unidentified
3231 Unidentified
3232 Unidentified
3233 Unidentified
3234 *Pandora neoaphidis*
3235 Unidentified
3236 Unidentified
3237 *Pandora neoaphidis*
3238 *Pandora neoaphidis*
3239 Unidentified
3240 *Pandora neoaphidis*
3241 *Pandora neoaphidis*
3242 Unidentified
3243 Unidentified

- 3244 Unidentified
 3245 Unidentified
 3246 Unidentified
 3247 Unidentified
 3248 Pandora neoaphidis
 3249 Pandora neoaphidis
 3250 Pandora neoaphidis
 3251 Pandora neoaphidis
 3252 Verticillium lecanii
 3253 Verticillium lecanii
 3254 Verticillium lecanii
 3255 Verticillium lecanii
 3257 Verticillium lecanii
 3258 Verticillium lecanii
 3259 Verticillium lecanii
 3260 Verticillium lecanii
 3261 Verticillium lecanii
 3262 Verticillium lecanii
 3263 Verticillium lecanii
 3264 Verticillium lecanii
 3265 Verticillium lecanii
 3266 Verticillium lecanii
 3267 Verticillium lecanii
 3268 Verticillium lecanii
 3269 Verticillium lecanii
 3270 Verticillium lecanii
 3271 Tolypocladium geodes
 3272 Tolypocladium geodes
 3273 Tolypocladium geodes
 3274 Tolypocladium geodes
 3275 Tolypocladium geodes
 3276 Tolypocladium geodes
 3277 Tolypocladium niveum
 3278 Tolypocladium niveum
 3279 Tolypocladium niveum
 3280 Tolypocladium niveum
 3281 Tolypocladium niveum
 3282 Strongwellsea castrans
 3283 Zoophthora radicans
 3284 Zoophthora radicans
 3285 Beauveria bassiana
 3286 Beauveria bassiana
 3287 Beauveria bassiana
 3288 Beauveria bassiana
 3289 Beauveria sp.
 3290 Metarhizium anisopliae var. anisopliae
 3291 Metarhizium anisopliae var. anisopliae
 3292 Metarhizium anisopliae var. anisopliae
 3293 Metarhizium anisopliae var. anisopliae
 3294 Metarhizium anisopliae var. anisopliae
 3295 Metarhizium anisopliae var. anisopliae
 3296 Fusarium sp.
 3297 Metarhizium anisopliae var. anisopliae
 3298 Unidentified
 3299 Unidentified
 3300 Fusarium sp.
 3301 Nomuraea rileyi
 3302 Paecilomyces fumosoroseus
 3303 Paecilomyces javanicus
 3304 Unidentified
 3305 Metarhizium anisopliae var. anisopliae
 3306 Metarhizium anisopliae var. anisopliae
 3307 Metarhizium anisopliae var. anisopliae
 3308 Metarhizium anisopliae var. anisopliae
 3309 Beauveria bassiana
 3310 Beauveria bassiana
 3311 Beauveria bassiana
 3312 Beauveria bassiana
 3313 Paecilomyces fumosoroseus
 3314 Verticillium lecanii
 3315 Verticillium ?lecanii
 3316 Verticillium ?lecanii
 3317 Verticillium ?lecanii
 3318 Verticillium lecanii
 3319 Unidentified
 3320 Tolypocladium niveum
 3321 Tolypocladium niveum
 3322 Paecilomyces fumosoroseus
 3323 Hirsutella thompsonii
 3324 Verticillium lecanii
 3325 Aspergillus ochraceus
 3326 Lagenidium giganteum
 3327 Lagenidium giganteum
 3329 Metarhizium anisopliae var. anisopliae
 3330 Metarhizium anisopliae var. anisopliae
 3331 Metarhizium anisopliae var. anisopliae
 3332 Metarhizium anisopliae var. anisopliae
 3333 Metarhizium anisopliae var. anisopliae
 3334 Metarhizium anisopliae var. anisopliae
 3335 Metarhizium anisopliae var. anisopliae
 3336 Metarhizium anisopliae var. anisopliae
 3337 Metarhizium anisopliae var. anisopliae
 3338 Metarhizium anisopliae var. anisopliae
 3339 Metarhizium anisopliae var. anisopliae
 3340 Metarhizium anisopliae var. anisopliae
 3341 Metarhizium flavoviride var. minus
 3342 Zoophthora phytonomi
 3343 Zoophthora phytonomi
 3344 Zoophthora phytonomi
 3345 Fusarium sp.
 3346 Drechmeria coniospora
 3347 Arthrobotrys oligospora
 3348 Monacrosporium ellipsosporum
 3349 Monacrosporium cionopagum
 3350 Verticillium balanoides
 3351 Nematoctonus sp.
 3352 Nematoctonus sp.
 3354 Drechmeria coniospora
 3355 Zoophthora radicans
 3356 Entomophaga praxibuli
 3357 Entomophaga praxibuli
 3358 Entomophaga praxibuli
 3359 Conidiobolus thromboides
 3360 Conidiobolus thromboides
 3361 Conidiobolus thromboides
 3362 Conidiobolus thromboides
 3363 Conidiobolus thromboides
 3364 Conidiobolus thromboides
 3365 Pandora neoaphidis
 3366 Pandora neoaphidis
 3367 Pandora neoaphidis
 3368 Unidentified
 3369 Arthrobotrys oligospora var. oligospora
 3370 Arthrobotrys oligospora var. oligospora
 3371 Arthrobotrys dactyloides
 3372 Arthrobotrys dactyloides
 3373 Arthrobotrys dactyloides
 3374 Unidentified
 3375 Cladosporium cladosporioides
 3376 Zoophthora radicans
 3377 Zoophthora radicans
 3378 Unidentified
 3379 Conidiobolus coronatus
 3380 Unidentified
 3381 Unidentified
 3382 Fusarium sp.
 3383 Conidiobolus sp.
 3384 Conidiobolus sp.
 3385 Beauveria bassiana
 3386 Beauveria bassiana
 3387 Beauveria bassiana
 3388 Metarhizium anisopliae
 3389 Metarhizium anisopliae
 3390 Zoophthora radicans
 3391 Metarhizium flavoviride
 3392 Tolypocladium cylindrosporum
 3393 Tolypocladium cylindrosporum
 3394 Tolypocladium niveum
 3395 Tolypocladium niveum
 3396 Tolypocladium niveum
 3398 Tolypocladium niveum
 3399 Tolypocladium tundrense
 3400 Tolypocladium tundrense
 3401 Tolypocladium tundrense
 3402 Conidiobolus sp.
 3403 Beauveria bassiana
 3404 Beauveria bassiana
 3405 Beauveria bassiana
 3406 Conidiobolus sp.
 3407 Conidiobolus sp.
 3408 Paecilomyces fumosoroseus
 3409 Conidiobolus sp.
 3410 Pandora neoaphidis
 3411 Pandora neoaphidis
 3412 Pandora neoaphidis
 3413 Unidentified
 3414 Conidiobolus coronatus
 3415 Conidiobolus coronatus
 3416 Verticillium psalliotiae
 3417 Unidentified
 3418 Verticillium lecanii
 3419 Unidentified
 3420 Unidentified
 3421 Unidentified
 3422 Unidentified
 3423 Unidentified
 3424 Unidentified
 3425 Unidentified
 3426 Unidentified
 3427 Unidentified
 3428 Unidentified
 3429 Paecilomyces fumosoroseus
 3430 Aspergillus flavus
 3431 Tolypocladium microsporum

3432	<i>Tolypocladium niveum</i>	3502	<i>Paecilomyces farinosus</i>	3572	<i>Paecilomyces farinosus</i>
3433	<i>Tolypocladium niveum</i>	3503	<i>Paecilomyces farinosus</i>	3573	<i>Paecilomyces farinosus</i>
3434	<i>Tolypocladium nubicola</i>	3504	<i>Paecilomyces farinosus</i>	3574	<i>Paecilomyces farinosus</i>
3435	<i>Tolypocladium nubicola</i>	3505	<i>Paecilomyces farinosus</i>	3575	<i>Paecilomyces farinosus</i>
3436	<i>Tolypocladium parasiticum</i>	3506	<i>Paecilomyces farinosus</i>	3576	<i>Paecilomyces farinosus</i>
3437	<i>Beauveria bassiana</i>	3507	<i>Paecilomyces farinosus</i>	3577	<i>Paecilomyces farinosus</i>
3438	<i>Beauveria bassiana</i>	3508	<i>Paecilomyces farinosus</i>	3578	<i>Paecilomyces farinosus</i>
3439	<i>Beauveria bassiana</i>	3509	<i>Hirsutella brownorum</i>	3579	<i>Paecilomyces farinosus</i>
3440	Unidentified	3510	<i>Beauveria</i> sp.	3580	<i>Paecilomyces farinosus</i>
3441	<i>Beauveria bassiana</i>	3511	<i>Paecilomyces lilacinus</i>	3581	<i>Paecilomyces farinosus</i>
3442	<i>Beauveria bassiana</i>	3512	<i>Paecilomyces lilacinus</i>	3582	<i>Paecilomyces farinosus</i>
3443	<i>Beauveria bassiana</i>	3513	<i>Beauveria bassiana</i>	3583	<i>Paecilomyces farinosus</i>
3444	<i>Beauveria bassiana</i>	3514	<i>Beauveria bassiana</i>	3584	<i>Paecilomyces farinosus</i>
3445	<i>Beauveria bassiana</i>	3515	<i>Beauveria bassiana</i>	3585	<i>Paecilomyces farinosus</i>
3446	<i>Beauveria bassiana</i>	3516	<i>Beauveria bassiana</i>	3586	<i>Paecilomyces farinosus</i>
3447	<i>Beauveria bassiana</i>	3517	<i>Paecilomyces farinosus</i>	3587	<i>Paecilomyces farinosus</i>
3448	<i>Beauveria bassiana</i>	3518	<i>Paecilomyces farinosus</i>	3588	<i>Paecilomyces farinosus</i>
3449	<i>Beauveria bassiana</i>	3519	<i>Paecilomyces farinosus</i>	3589	<i>Paecilomyces farinosus</i>
3450	<i>Beauveria bassiana</i>	3520	<i>Paecilomyces farinosus</i>	3590	<i>Paecilomyces farinosus</i>
3451	<i>Beauveria bassiana</i>	3521	<i>Paecilomyces farinosus</i>	3591	<i>Paecilomyces farinosus</i>
3452	<i>Beauveria bassiana</i>	3522	<i>Paecilomyces farinosus</i>	3592	<i>Paecilomyces farinosus</i>
3453	<i>Beauveria bassiana</i>	3523	<i>Paecilomyces farinosus</i>	3593	<i>Paecilomyces farinosus</i>
3454	<i>Beauveria bassiana</i>	3524	<i>Paecilomyces farinosus</i>	3594	<i>Paecilomyces farinosus</i>
3455	<i>Beauveria bassiana</i>	3525	<i>Paecilomyces farinosus</i>	3595	<i>Paecilomyces farinosus</i>
3456	<i>Beauveria bassiana</i>	3526	<i>Paecilomyces farinosus</i>	3596	<i>Paecilomyces farinosus</i>
3457	<i>Beauveria bassiana</i>	3527	<i>Beauveria bassiana</i>	3597	<i>Paecilomyces farinosus</i>
3458	<i>Paecilomyces fumosoroseus</i>	3528	<i>Beauveria bassiana</i>	3598	<i>Paecilomyces farinosus</i>
3459	<i>Pandora neoaphidis</i>	3529	<i>Beauveria bassiana</i>	3599	<i>Paecilomyces farinosus</i>
3460	<i>Beauveria bassiana</i>	3530	<i>Beauveria bassiana</i>	3600	<i>Verticillium lecanii</i>
3461	<i>Paecilomyces farinosus</i>	3531	<i>Verticillium</i> sp.	3601	<i>Verticillium lecanii</i>
3462	<i>Beauveria bassiana</i>	3532	<i>Fusarium</i> sp.	3602	<i>Entomophaga aulicae</i>
3463	<i>Cladosporium cladosporioides</i>	3533	<i>Paecilomyces farinosus</i>	3603	<i>Metarhizium anisopliae</i>
3464	<i>Verticillium lecanii</i>	3534	<i>Beauveria bassiana</i>	3604	<i>Metarhizium anisopliae</i>
3466	Unidentified	3535	Unidentified	3605	<i>Metarhizium anisopliae</i>
3467	Unidentified	3536	Unidentified	3606	<i>Metarhizium flavoviride</i>
3468	Unidentified	3537	<i>Paecilomyces farinosus</i>	3607	<i>Beauveria bassiana</i>
3469	<i>Paecilomyces lilacinus</i>	3538	<i>Paecilomyces farinosus</i>	3608	<i>Metarhizium anisopliae</i>
3470	Unidentified	3539	<i>Verticillium</i> sp.	3609	<i>Metarhizium anisopliae</i>
3471	Unidentified	3540	<i>Metarhizium anisopliae</i>	3610	<i>Metarhizium anisopliae</i>
3472	Mixed culture	3541	<i>Metarhizium anisopliae</i>	3611	<i>Metarhizium anisopliae</i>
3473	Unidentified	3542	<i>Metarhizium anisopliae</i>	3612	<i>Metarhizium</i> sp.
3474	Unidentified	3543	<i>Beauveria bassiana</i>	3613	<i>Metarhizium</i> sp.
3475	Unidentified	3544	<i>Metarhizium anisopliae</i>	3614	<i>Metarhizium</i> sp.
3476	Unidentified	3545	<i>Paecilomyces</i> sp.	3615	<i>Metarhizium</i> sp.
3477	Unidentified	3546	<i>Hirsutella</i> sp.	3616	<i>Metarhizium</i> sp.
3478	Unidentified	3547	<i>Verticillium</i> sp.	3617	<i>Metarhizium</i> sp.
3479	<i>Metarhizium anisopliae</i> var. <i>anisopliae</i>	3548	<i>Hirsutella</i> sp.	3618	<i>Metarhizium</i> sp.
3480	<i>Paecilomyces fumosoroseus</i>	3549	<i>Verticillium</i> sp.	3619	<i>Metarhizium anisopliae</i>
3481	<i>Paecilomyces lilacinus</i>	3550	<i>Verticillium</i> sp.	3620	<i>Beauveria bassiana</i>
3482	<i>Hirsutella thompsonii</i>	3551	<i>Verticillium</i> sp.	3621	<i>Metarhizium anisopliae</i>
3483	<i>Fusarium sambucinum</i>	3552	<i>Verticillium</i> sp.	3622	<i>Beauveria bassiana</i>
3484	<i>Pandora delphacis</i>	3553	<i>Hirsutella</i> sp.	3623	<i>Zoophthora radicans</i>
3485	<i>Strongwellsea castrans</i>	3554	<i>Verticillium lecanii</i>	3624	Unidentified
3486	<i>Zoophthora</i> sp.	3555	<i>Verticillium lecanii</i>	3625	Unidentified
3487	<i>Zoophthora</i> sp.	3556	<i>Verticillium</i> sp.	3626	Unidentified
3488	<i>Zoophthora</i> sp.	3557	<i>Verticillium lecanii</i>	3627	Unidentified
3489	<i>Zoophthora radicans</i>	3558	<i>Verticillium lecanii</i>	3628	Unidentified
3490	<i>Paecilomyces farinosus</i>	3559	<i>Verticillium lecanii</i>	3629	Unidentified
3491	<i>Paecilomyces farinosus</i>	3560	Unidentified	3630	Unidentified
3492	<i>Paecilomyces farinosus</i>	3561	<i>Verticillium</i> sp.	3631	Unidentified
3493	<i>Paecilomyces farinosus</i>	3562	<i>Verticillium lecanii</i>	3632	Unidentified
3494	<i>Paecilomyces farinosus</i>	3563	<i>Verticillium lecanii</i>	3633	Unidentified
3495	<i>Paecilomyces farinosus</i>	3564	<i>Paecilomyces farinosus</i>	3634	Unidentified
3496	<i>Paecilomyces farinosus</i>	3565	<i>Metarhizium anisopliae</i>	3635	Unidentified
3497	<i>Paecilomyces farinosus</i>	3566	<i>Paecilomyces</i> sp.	3636	Unidentified
3498	<i>Paecilomyces farinosus</i>	3567	Unidentified	3637	Unidentified
3499	<i>Paecilomyces farinosus</i>	3568	Unidentified	3638	Unidentified
3500	<i>Paecilomyces farinosus</i>	3569	Unidentified	3639	Unidentified
3501	<i>Paecilomyces farinosus</i>	3570	Unidentified	3640	Unidentified
		3571	Unidentified	3641	Unidentified

3642 Unidentified	3713 Metarhizium anisopliae
3643 Unidentified	3714 Unidentified
3644 Unidentified	3715 Unidentified
3645 Unidentified	3716 Beauveria bassiana
3646 Unidentified	3717 Beauveria bassiana
3647 Unidentified	3718 Cordyceps sp.
3648 Unidentified	3719 Unidentified
3649 Unidentified	3720 Metarhizium anisopliae
3650 Unidentified	3721 Metarhizium anisopliae
3651 Unidentified	3722 Unidentified
3652 Unidentified	3723 Monacrosporium ellipsosporum
3653 Unidentified	3724 Unidentified
3654 Unidentified	3725 Unidentified
3655 Unidentified	3726 Unidentified
3656 Unidentified	3727 Unidentified
3657 Unidentified	3728 Unidentified
3658 Paecilomyces farinosus	3729 Unidentified
3659 Paecilomyces farinosus	3730 Arthrobotrys musiformis
3660 Paecilomyces farinosus	3731 Monacrosporium ellipsosporum
3661 Paecilomyces farinosus	3732 Arthrobotrys oligospora
3662 Paecilomyces farinosus	3733 Arthrobotrys dactyloides
3663 Paecilomyces farinosus	3734 Beauveria bassiana
3664 Paecilomyces farinosus	3735 Unidentified
3665 Paecilomyces farinosus	3736 Podonectria coccicola
3666 Paecilomyces farinosus	
3667 Beauveria bassiana	
3668 Fusarium sp.	
3669 Fusarium sp.	
3670 Fusarium sp.	
3671 Fusarium sp.	
3672 Fusarium sp.	
3673 Fusarium sp.	
3674 Fusarium sp.	
3675 Fusarium sp.	
3676 Fusarium sp.	
3677 Fusarium sp.	
3678 Fusarium sp.	
3679 Fusarium sp.	
3680 Aphanocladium album	
3681 Beauveria bassiana	
3682 Paecilomyces fumosoroseus	
3683 Verticillium lecanii	
3684 Verticillium lecanii	
3685 Verticillium lecanii	
3686 Verticillium lecanii	
3687 Verticillium lecanii	
3688 Verticillium lecanii	
3689 Verticillium lecanii	
3690 Verticillium lecanii	
3691 Verticillium lecanii	
3692 Fusarium polyphialidicum	
3693 Fusarium polyphialidicum	
3694 Fusarium polyphialidicum	
3695 Fusarium polyphialidicum	
3696 Fusarium polyphialidicum	
3698 Aspergillus sp.	
3699 Paecilomyces fumosoroseus	
3700 Paecilomyces fumosoroseus	
3701 Verticillium lecanii	
3702 Sterile mycelium	
3703 Sterile mycelium	
3704 Fusarium sp.	
3705 Sterile mycelium	
3706 Cladosporium sp.	
3707 Fusarium sp.	
3708 Trichothecium roseum	
3709 Verticillium lecanii	
3710 Sterile mycelium	
3711 Sterile mycelium	
3712 Sterile mycelium	

